Color Active-Matrix LCD Touch Panels
(Firmware version G3 or higher)

Instruction Manual

8.5" Touch Panels and Accessories

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Introduction

Overview

This manual describes procedures and software related to the new G3 firmware installed in these panels. The Color Active-Matrix Touch Panels (CATPs) contain a 640 x 480 (HV) pixel, dedicated 256-color active-matrix liquid crystal display (LCD). These self-contained enclosures use a microprocessor to control a wide range of audiovisual products. With the TPDesign 3 custom Touch Panel design program, you can create custom pages with buttons, icons, sliders, bargraphs, and imported logos and drawings. Figure 1 shows an AXT-CA Color Active-Matrix TiltScreen.

Figure 1

Color Active-Matrix TiltScreen

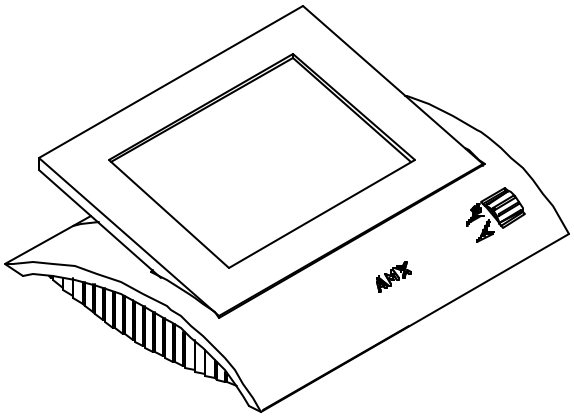


Figure 2 lists the panel types and product names described in this manual.

Figure 2

Color Active Touch Panel types and product names

Color Active Touch Panel types and product names

Panel types	Product names		
	Standard	**Video**	**Pushbutton**
TiltScreen	AXT-CA	AXT-CV	(not used)
UniMount	AXU-CA	AXU-CV	AXU-CV/PB AXU-CA/PB
Rack-mount	AXM-CA	AXM-CV	AXM-CV/PB AXM-CA/PB

Features

Touch Panel features include:

- 5.25" x 6.96" (133.45 mm x 176.89 mm) visible screen
- 256-color active-matrix 640 x 480 (HV) pixel LCD
- 12 programmable pushbuttons (8 on each side - *except for the AXT series*)
- Microsoft® mouse compatible (UniMount and rack-mount models only)
- Panel programming, screens, and drawings that can be archived with TPDOC (MS-DOS) or designed with TPDesign 3 (Windows) touch panel software program
- PAL- and NTSC-compatible video input port (optional)
- Optional two-way WavePack or one-way SmartPack modules for wireless control (TiltScreen enclosure)
- Internal four-pin header for mouse control (UniMount and rack-mount models only)
- Unicode Font support for Chinese and Arabic characters

Note

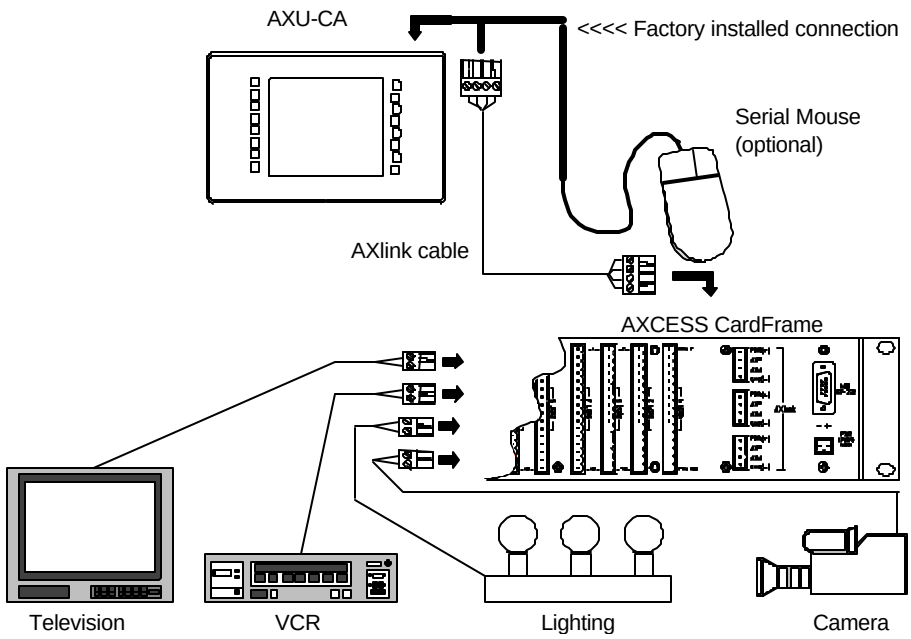
These buttons with Unicode Fonts can only be created and edited within TPDesign 3.

Applications

The AMX Color Active-Matrix Touch Panels control a wide variety of equipment connected to an AXCESS Control System. Figure 3 shows a sample AXU-CA Touch Panel and AXCESS Control System configuration.

Figure3

Sample AXU-CA Touch Panel and AXCESS Control System



Note

The optional mouse can be used to design Touch Panel pages and then removed before installation.

What's in this Manual

This manual contains the following sections:

- **Installing the Touch Panel** Includes installation, wiring, and cleaning instructions.
- **Touch Panel Basics** Describes elements associated with the Touch Panel operating system such as button types, message, and editor selection.
- **Designing a Touch Panel Page** Lists step-by-step instructions on how to create a Touch Panel page, button, joystick, and bargraph.
- **Touch Panel Program Reference** Describes Touch Panel operations.

- **AXCESS Programming** Describes commands used to integrate Touch Panel features into an AXCESS Control System.
- **Replacing the Lithium Batteries** Shows how to replace the lithium batteries in the CATP.
- **EXM-1MB Memory Upgrade** Gives step-by-step instructions to install the required EXM-1MB Memory Upgrade integrated circuits (ICs) in the CATP.
- **Color Guidelines** Provides helpful hints you can use to choose the best Touch Panel colors.
- **Specifications** Describes the physical and operating characteristics of the Touch Panels.
- **Technical Support** Identifies regions for technical support and provides telephone numbers for each region.

What's New

New sections added to this manual include:

- **Touch Panel Basics**
- **Designing a Touch Panel Page**
- **Touch Panel Program Reference**
- **AXCESS Programming**

All other revisions are identified by vertical margin bars as shown adjacent to this paragraph.

Installing Touch Panels

Overview

The section describes how to mount, wire, and clean Touch Panels.

Mounting the Touch Panels

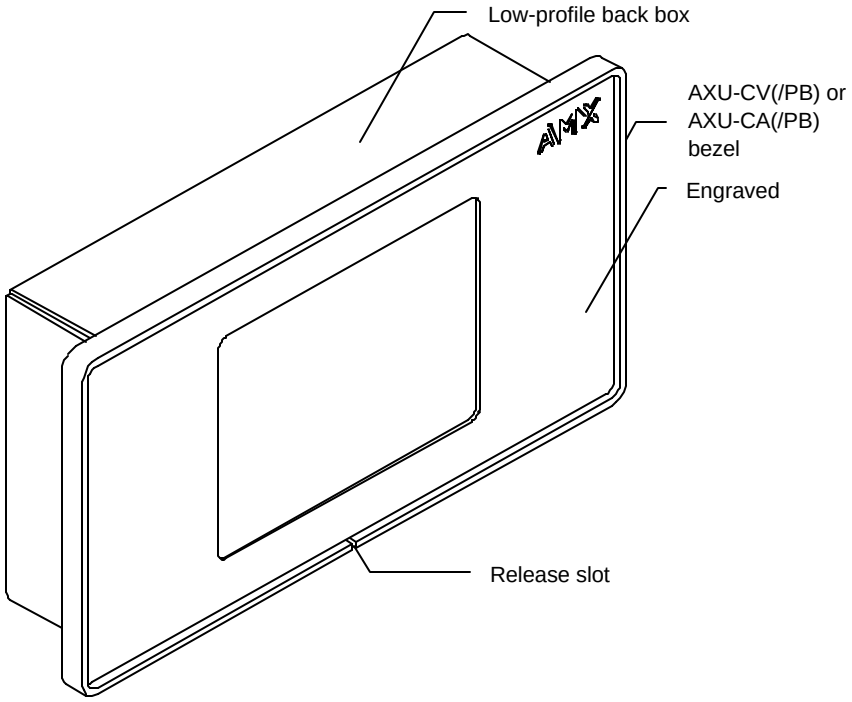
The following paragraphs describe how to mount the UniMount and rack-mount Touch Panels. The TiltScreen Touch Panel can be placed on any flat surface.

AXU-CV(/PB), AXU-CA(/PB), and low-profile back box

Mount the AXU-CV(/PB), AXU-CA(/PB), and low-profile back box (Figure 4):

Figure4

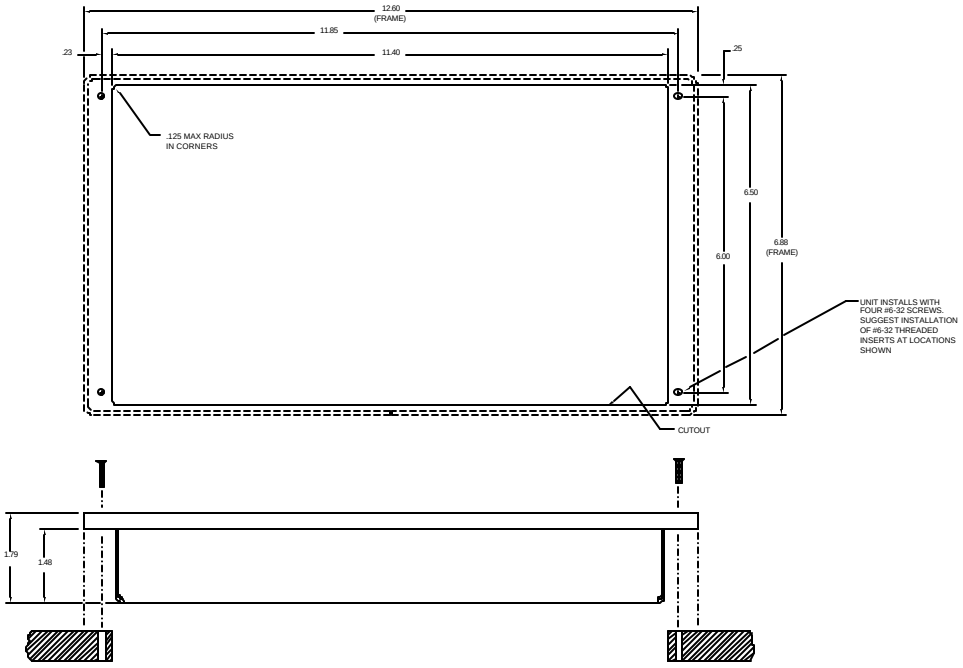
AXU-CV(/PB) or AXU-CA(/PB) and low-profile back box



1. Make a cutout in the surface according to the dimensions shown in Figure 5 for a low-profile back box.

Figure5

AXU-CV(/PB) or AXU-CA(/PB) and low-profile back box cutout dimensions



2. Insert a flat head screwdriver into the release slot on the AXU-CV(/PB)s or AXU-CA(/PB)'s bezel and remove the engraved overlay.
3. Place the AXU-CV(/PB) or AXU-CA(/PB) into the cutout and mark the screw insert positions as shown in Figure 4.
4. Remove the AXU-CV(/PB) or AXU-CA(/PB) and drill four #6-32 insert holes. Then, place a threaded insert into each hole.
5. Attach the data and power wiring to the AXU-CV(/PB) or AXU-CA(/PB). Refer to *Wiring the Touch Panels* for wiring diagrams and pinout descriptions.
6. Fasten the AXU-CV(/PB) or AXU-CA(/PB) and low-profile back box to the surface using the #6-32 machine screws supplied with the enclosure.
7. Insert the engraved overlay back into the bezel.
8. Connect the AXlink wiring to the AMX Central Controller, and RS-232 wiring (optional) to the external RS-232 device. The AXU-CV(/PB) or AXU-CA(/PB) will beep when you apply power.

Note

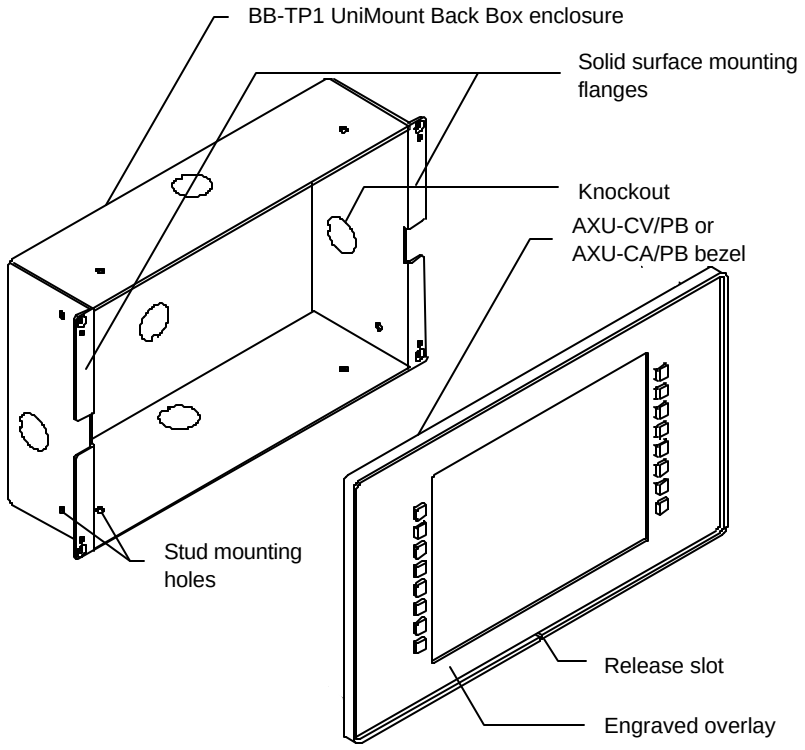
The CATP must always be installed with the release slot located at the bottom

AXU-CV(/PB) or AXU-CA(/PB) and BB-TP1 (solid surfaces)

Mount the AXU-CV(/PB) or AXU-CA(/PB) and BB-TP1 (Figure 6) into a solid surface:

Figure6

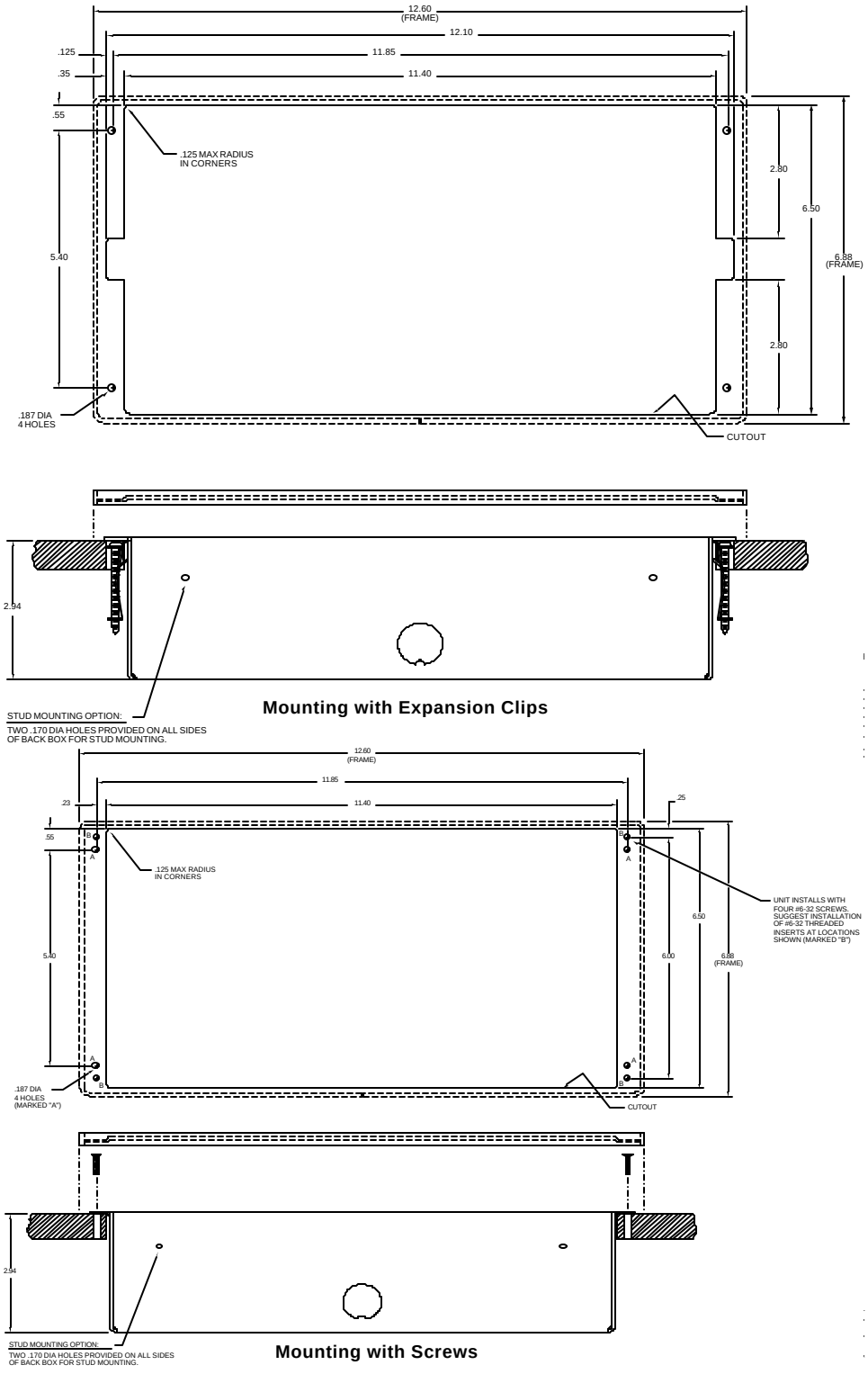
AXU-CV/PB or AXU-CA/PB and BB-TP1 UniMount Back Box enclosure for solid surfaces



1. Cut the solid surface according to the cutout dimensions shown in Figure 7.
2. Insert a flat head screwdriver into the release slot on the AXU-CV(/PB) or AXU-CA(/PB)'s bezel and remove the engraved overlay.

Figure7

AXU-CV(/PB) or AXU-CA(/PB), and BB-TP1 cutout dimensions



3. Lay the AXU-CV(/PB) or AXU-CA(/PB) facedown onto a soft cloth and remove the four screws from the low-profile back box. Remove the back box and discard.

Note

The CATP must always be installed with the release slot located at the bottom.

4. Place the BB-TP1 into the cutout and mark the threaded insert positions as shown in Figure 7.
5. Remove the BB-TP1 and drill eight holes as shown in Figure 6. Then, place #6-32 threaded inserts into the four holes marked 'B' in the cutout dimensions illustration.
6. Disconnect the AXlink connector from the control system that supplies power and data to the AXU-CV(/PB) or AXU-CA(/PB). Then, disconnect the DB-9 connector from the external RS-232 device connected to the AXU-CV(/PB) or AXU-CA(/PB).
7. Remove one or more knockouts to accommodate the wiring as required.
8. Thread the incoming AXlink and RS-232 wiring through the BB-TP1 knockout.

Note

The BB-TP1 can also be mounted to wood or metal studs using the pre-drilled stud mounting holes.

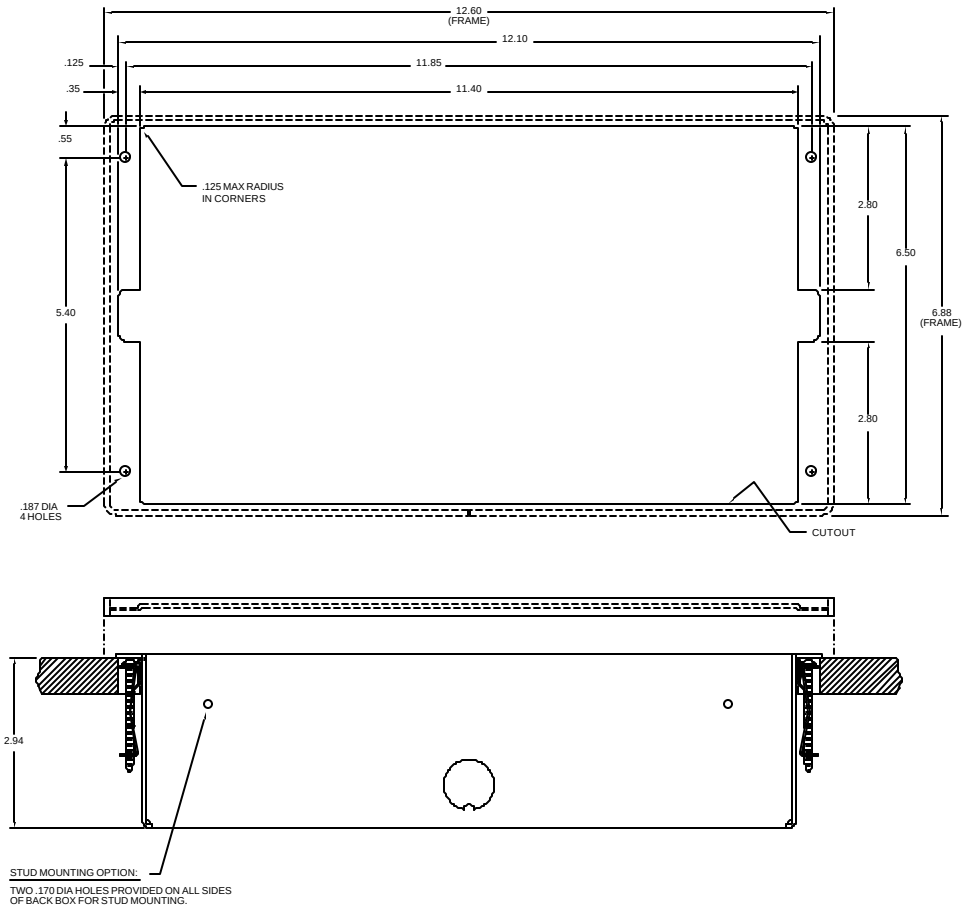
9. Fasten the BB-TP1 to the solid surface with the mounting screws supplied with the enclosure.
10. Connect the AXlink and RS-232 wiring to the AXU-CV(/PB) or AXU-CA(/PB) circuit card. Refer to *Wiring the Touch Panel* for complete wiring information.
11. Fasten the AXU-CV(/PB) or AXU-CA(/PB) to the BB-TP1 with the #6-32 screws provided with the enclosure.
12. Insert the engraved overlay back into the bezel.
13. Connect the AXlink wiring to the AMX control system and RS-232 wiring to the external RS-232 device. The AXU-CV(/PB) or AXU-CA(/PB) will beep when you apply power.

AXU-CV(/PB) or AXU/CA(/PB) and BB-TP1 (plasterboard)

Mount the AXU-CV(/PB) or AXU-CA(/PB) and BB-TP1 (Figure 8) into a plasterboard surface (or equivalent).

Figure8

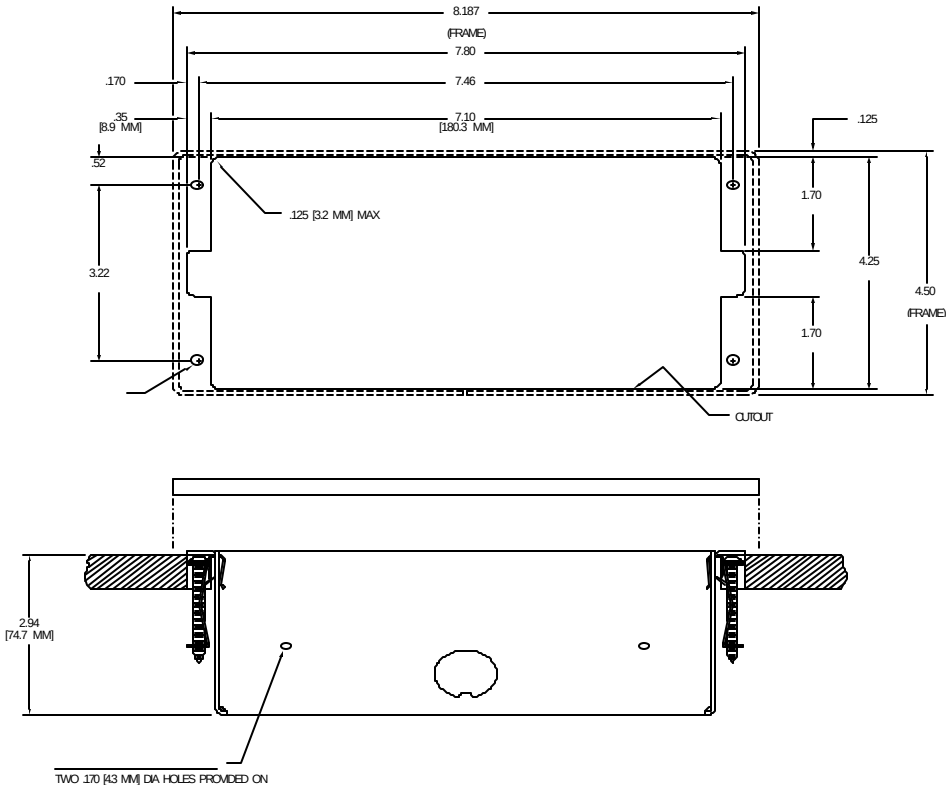
AXU-CV/PB and BB-TP1 for plasterboard



1. Cut the surface according to the cutout dimensions shown in Figure 9.

Figure9

AXU-CV(/PB) or AXU-CA(/PB), and BB-TP1 cutout dimensions



2. Insert a flat head screwdriver into the release slot on the AXU-CV(/PB)'s or AXU-CA(/PB)'s bezel and remove the engraved overlay.
3. Lay the AXU-CV(/PB) or AXU-CA(/PB) facedown onto a soft cloth and remove the four screws from the low-profile back box. Remove the back box and discard.
4. Place the BB-TP1 into the cutout and mark the threaded insert positions as shown in Figure 9.
5. Remove the BB-TP1 and drill four #6-32 insert holes. Then, place a threaded insert into each hole.
6. Disconnect the AXlink connector from the AMX Central Controller that supplies power and data to the AXU-CV(/PB) or AXU-CA(/PB). Then, disconnect the DB-9 connector from the external RS-232 device connected to the AXU-CV(/PB) or AXU-CA(/PB).
7. Thread the incoming AXlink and RS-232 wiring through the BB-TP1 knockout.

Note

The CATP must always be installed with the release slot located at the bottom.

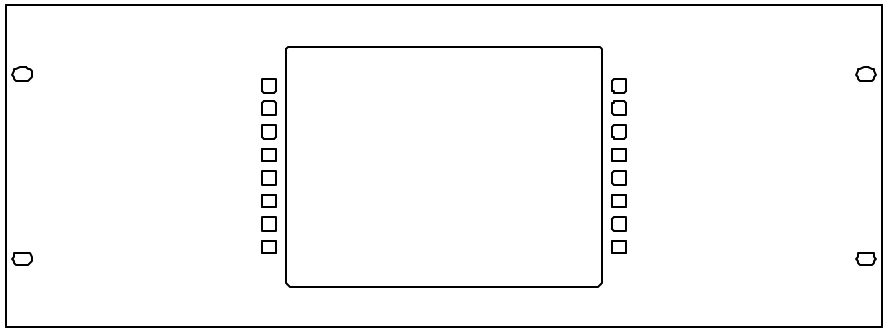
8. Fasten the BB-TP1 to the plasterboard using the expansion screws supplied with the enclosure.
9. Connect the AXlink and RS-232 wiring to the AXU-CV(/PB) or AXU-CA(/PB) circuit card. Refer to *Wiring the Touch Panel* for complete wiring information.
10. Fasten the AXU-CV(/PB) or AXU-CA(/PB) to the BB-TP1 with the #6-32 screws supplied with the enclosure.
11. Insert the engraved overlay back into the bezel.
12. Connect the AXlink wiring to the AMX Central Controller and RS-232 wiring to the external RS-232 device. The AXU-CV(/PB) or AXU-CA(/PB) will beep when you apply power.

AXM-CV(/PB) or AXM-CA(/PB) (rack-mount)

Mount the AXM-CA(/PB) or AXM-CA(/PB) (Figure 10) rack-mount into an electronic equipment rack.

Figure10

AXM-CV(/PB) or AXM-CA(/PB) Rack-Mount CATP



1. Thread the incoming AXlink and RS-232 (optional) wiring through the opening in the equipment rack.
2. Disconnect the AXlink connector from the AMX Central Controller that supplies power and data to the AXM-CV(/PB) or AXM-CA(/PB). Then, disconnect the DB-9 connector from the external RS-232 device connected to the AXU-CV(/PB) or AXM-CA(/PB).
3. Connect the AXlink and RS-232 wiring to the AXM-CV(/PB) circuit card. Refer to *Wiring the Touch Panel* for complete wiring information.

4. Insert the AXM-CV(/PB) or AXM-CA(/PB) into the rack. Line up the top left and right screw holes and start the #6-32 screws. Then, start the bottom left and right screws. Tighten all the screws after you start all the screws.

5. Connect the AXlink wiring to the AMX Central Controller and RS-232 wiring to the external RS-232 device. The AXM-CV(/PB) or AXM-CA(/PB) will beep when you apply power.

Wiring the Touch Panels

The CATPs use a four-pin AXlink connector for power and data. Figure 11 shows the rear panel AXlink connector on the TiltScreen color active and color video touch panels. Figure 12 shows the rear panel AXlink connector on the UniMount and rack-mount color active and color video touch panels.

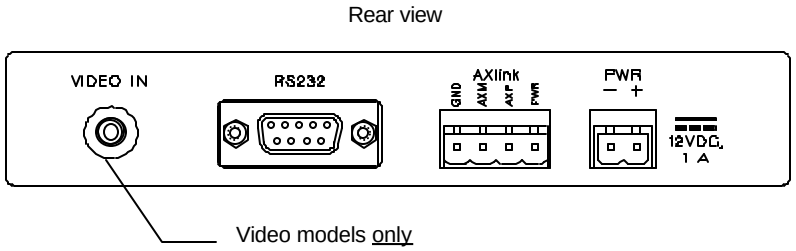


Figure11

TiltScreen Color and Video Touch Panel connectors (rear view)

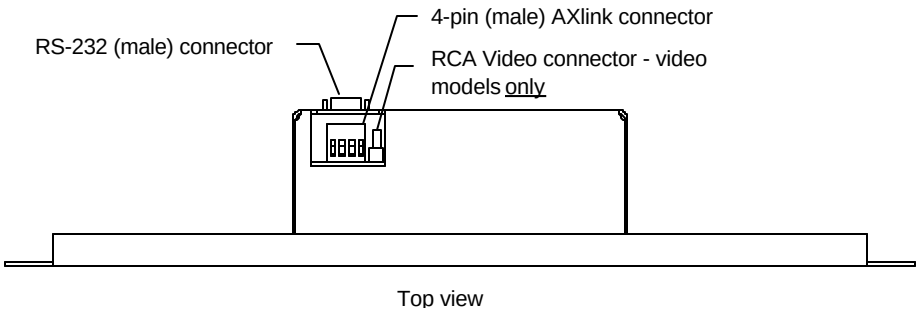


Figure12

Rack-Mount CATP connectors (top view)

Preparing captive wires

Caution

Do not connect power to the Touch Panel until the wiring is complete. If you are using a 12 VDC power supply, apply power to the Touch Panel only after installation is complete.

You will need a wire stripper and flat-blade screwdriver to prepare and connect the captive wires.

1. Strip 0.25 inch (6.35 mm) of wire insulation off all wires.

2. Insert each wire into the appropriate opening on the connector according to the wiring diagrams and connector types described in this section.

3. Turn the flat-blade screws clockwise to secure the wire in the connector.

Caution

Do not over-torque the screw. Doing so can bend the seating pin and damage the connector.

Wiring guidelines

Touch Panels require regulated 12 VDC power to operate properly. The AXCESS Central Controller supplies power via the AXlink cable. The maximum wiring distance between the control system and Touch Panel is determined by power consumption, supplied voltage, and the wire gauge used for the cable. Figure 13 lists wire sizes and the maximum lengths allowable between the Touch Panel and control system. The maximum wiring lengths for using AXlink power are based on a minimum of 13.5 volts available at the control system's power supply.

Figure13

Wiring guidelines 800 mA. See the *Specifications* section for power information.

Wiring guidelines for Touch Panel (800 m

Wire size	Maximum wiring length
18 AWG	146.71 feet (44.71 m)
20 AWG	92.8 feet (28.29 m)
22 AWG	57.9 feet (17.65 m)
24 AWG	34.5 feet (10.52 m)

Note

For information on the maximum power consumption of each device, see the *Specifications* section.

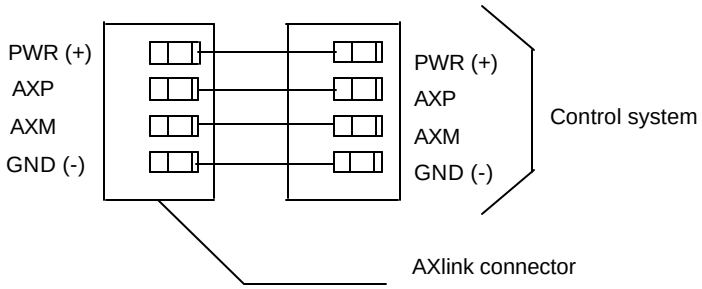
If you install the Touch Panel farther away from the control system than recommended in Figure 13, connect an external 12 VDC power supply as shown in the wiring diagrams in this section.

Using the AXlink connector for data and power

Connect the control system's AXlink connector to the AXlink connector on the rear of the Touch Panel for data and 12 VDC power as shown in Figure 14.

Figure14

AXlink wiring diagram



Caution

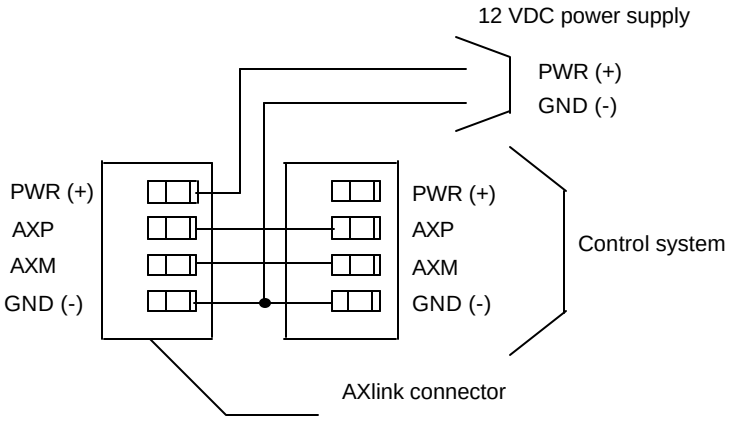
If you are using power from AXlink, disconnect the wiring from the AXCESS Central Controller before wiring the Touch Panel.

Using the AXlink connector with an external 12 VDC power supply

Connect the control system's AXlink connector to the AXlink connector on the rear panel of the Touch Panel as shown in Figure 15.

Figure15

AXlink and external 12 VDC power supply wiring diagram



Use an external 12 VDC power supply when the distance between the control system and Touch Panel exceeds the limits described in Figure 13. Make sure to connect only the GND wire on the AXlink connector when using an external 12 VDC power supply. *Do not* connect the PWR wire to the AXlink connector's PWR (+) terminal.

Using the UniMount and rack-mount 4-pin header for mouse control

Figure 16 shows the location of the four-pin header on the UniMount and rack-mount Touch Panels. The four-pin header supports Microsoft serial mouse control devices. Figure 17 for DB-9 wiring diagram. Figure 18 lists the four-pin header and DB-9 connector (male) pinouts

Figure16

Four-pin header location on the UniMount and rack-mount Touch Panel circuit card

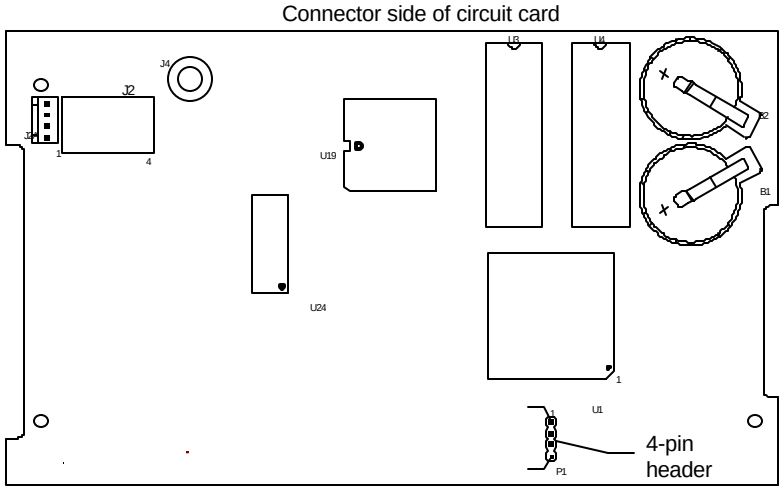


Figure17

Circuit connector wiring diagram

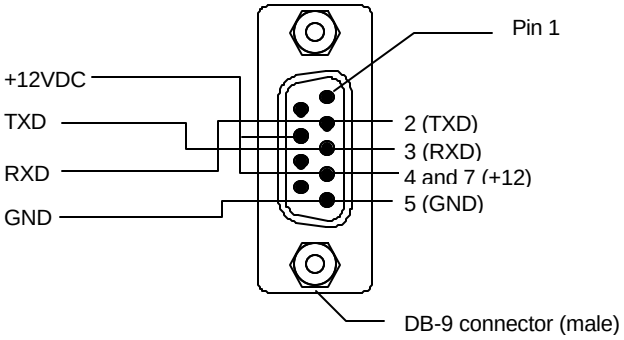


Figure18

Four-pin header and DB-9 connector pinouts

Four-pin header and DB-9 connector pinouts

Four-pin header	Signal	Function	DB-9 connector (male) pins
1	PWR	+12 VDC power	4 and 7 (strap)
2	TXD	Transmit data	3
3	RXD	Receive data	2
4	GND	Ground	5

Cleaning the Touch Overlay

After installing the Touch Panel, you should clean the touch overlay. To clean the touch overlay:

1. Disconnect the AXlink and optional video connectors from the CATP.
2. Using a cotton cloth, spray a small amount of cleaning solution consisting of 50% isopropyl alcohol and 50% water onto the cloth.
3. Clean the touch overlay with the damp cloth. Then, wipe the touch overlay with a dry cloth.
4. Reconnect the AXlink and optional video connectors to the CATP.

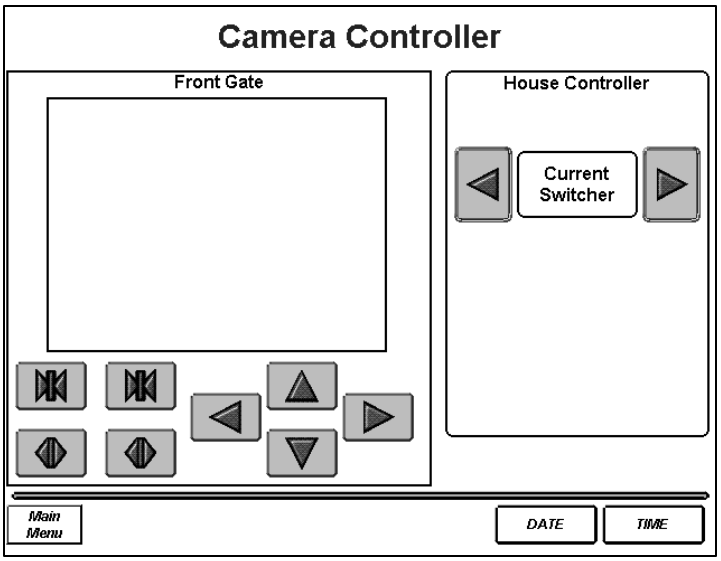
Touch Panel Basics

Overview

This section contains descriptions and illustration examples of Touch Panel pages (Figure 19), buttons, message bars, and keypads. You can use the Touch Panel's onboard editor or the TPDesign 3 software program to create custom pages.

Figure19

Sample Touch Panel page

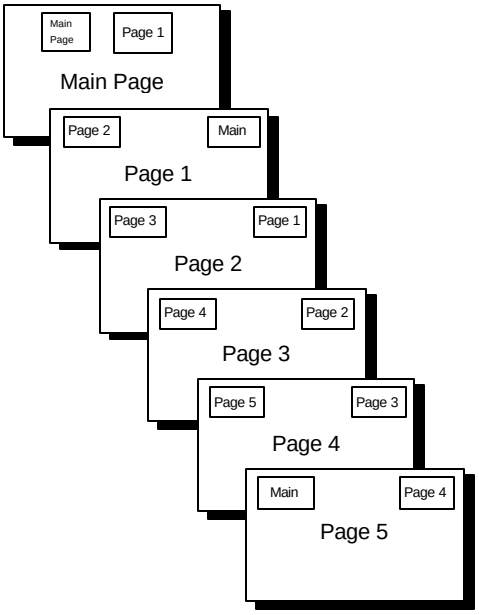


Touch Panel Pages

You can create buttons, bargraphs, sliders, and drawings with the Touch Panel editor. The number of objects depends on the type and quantity of external devices you want to control with the Touch Panel and AXCESS Central Controller. When you create multiple pages, you must link them with buttons. Figure 20 shows how five Touch Panel pages are linked to the Main page. The illustration shows how each page has a button that flips to the next page, and one that flips back to the previous page.

Figure20

Touch Panel pages with linked buttons



Standard Buttons

Standard buttons are rectangles, rectangle variations, and other geometric shapes that you can create with the Touch Panel. Buttons are set with attributes, which means that there is control system feedback when you touch the button.

General Buttons

General buttons are part of the Touch Panel program and cannot be changed. You use general buttons to specify panel communication parameters and create or revise pages. Some button examples include the message bar, adjustment, keypad, page menu, decision, status, and keyboard.

Selection buttons

Selection buttons (Figure 21) appear throughout the color active and color active video Touch Panel software program to open pages, activate YES/NO prompt messages or set communication parameters.

Figure21

Selection button example

Information buttons

Information buttons contain serial numbers and firmware version information. Figure 22 shows the serial number information button in the Setup page.

Figure22

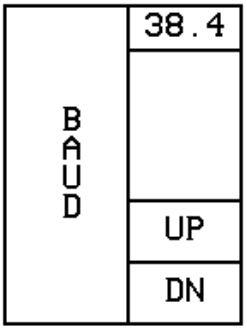
Information button example

Adjustment buttons

You can use the UP and DN buttons to set adjustment buttons. The adjustment button example in Figure 23 sets the baud rate for the RS-232 connector on the Touch Panel.

Figure23

Adjustment button example

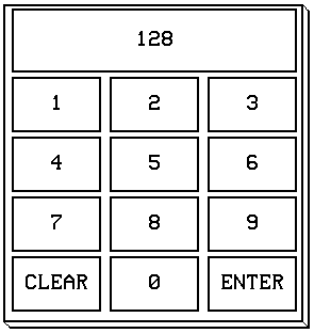


Keypad buttons

The keypad button opens a keypad (Figure 24) so you can enter a password or value assignment. All keypad buttons are interactive except for the entry display.

Figure24

Keypad example



Entry display

Keypad entry (0 - 9)

ENTER – Processes entry if correct

CLEAR – Resets entry to 0

Decision buttons

Decision buttons (Figure 25) appear when an operation has two options.

Figure25

Decision button example

Decision buttons appear when you send or receive a drawing, designate a communication protocol or perform an operation error.

Status buttons

Status buttons (Figure 26) appear when you try to perform operations that do not function correctly.

Figure26

Status button example

Designing a Touch Panel Page

Overview

Use the step-by-step instructions to create Touch Panel pages, buttons, joysticks, bargraphs, and set page color attributes. For in-depth information on all the operations available on the Touch Panel, read through the *Touch Panel Program Reference* section to learn about all the operations and techniques available to design Touch Panel pages.

Activating the Edit Button

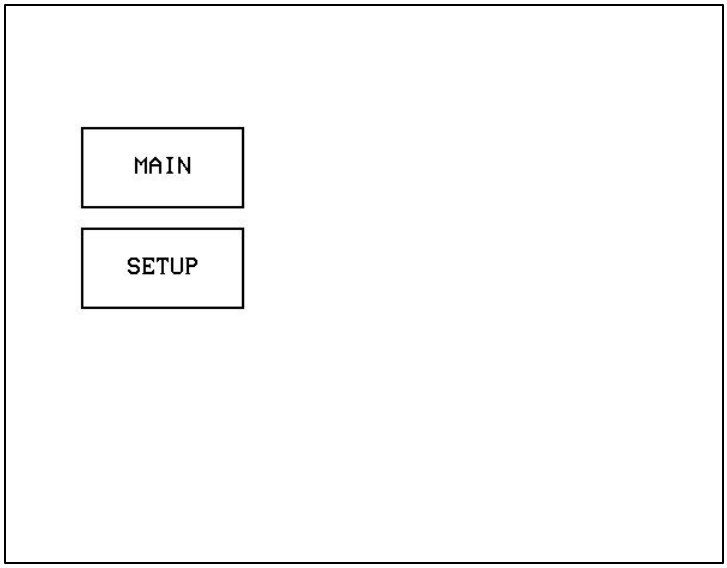
Before you design a Touch Panel page you must activate the EDIT button which contains options to add and configure Touch Panels and buttons. When you power up the Touch Panel, the first page you see is the MAIN page shown in Figure 27. Refer to *Edit button* and *Go to* information in the *Touch Panel Program Reference* section if the MAIN page does not appear.

Note

If you have a pre-programmed panel, you may not see the MAIN page.

Figure27

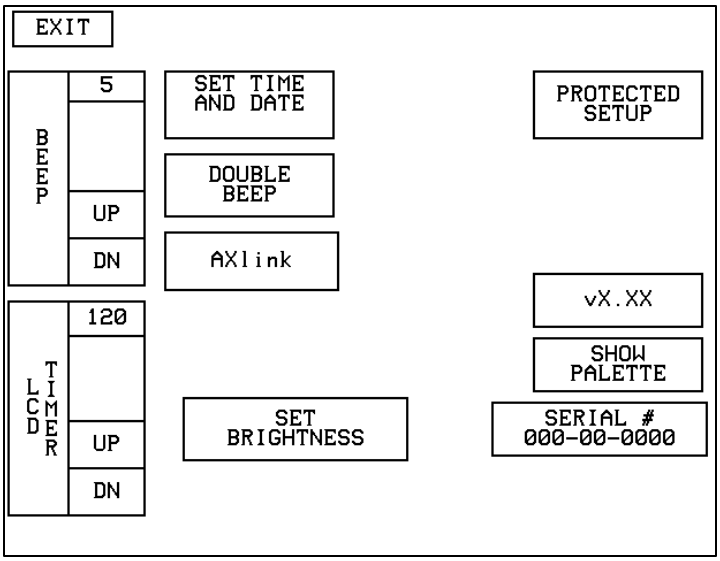
MAIN page



1. Press SETUP in the MAIN page to open the SETUP page shown in Figure 28.

Figure28

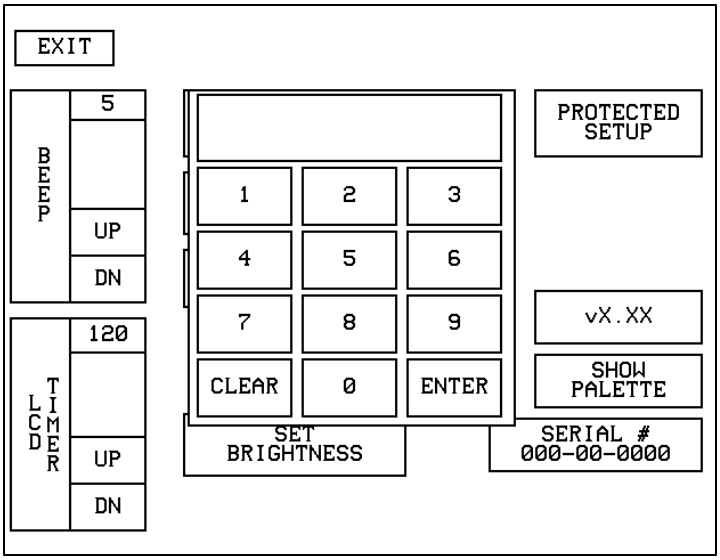
SETUP page



2. In the above page, press PROTECTED SETUP to open the password keypad shown in Figure 29.

Figure29

SETUP page and password keypad



Note

If you press ENTER after typing in an incorrect password, you are immediately returned to the previous page.

3. Type `1988` in the keypad, and press ENTER to open the PROTECTED SETUP page (Figure 30). For information on changing the password, refer to *Touch Panel Program Reference* section. If you enter a wrong number, press CLEAR and re-enter the number.

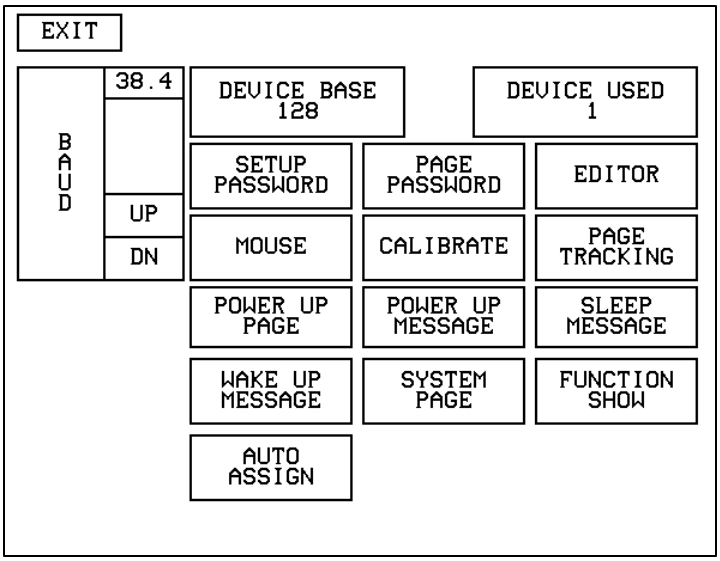


Figure30

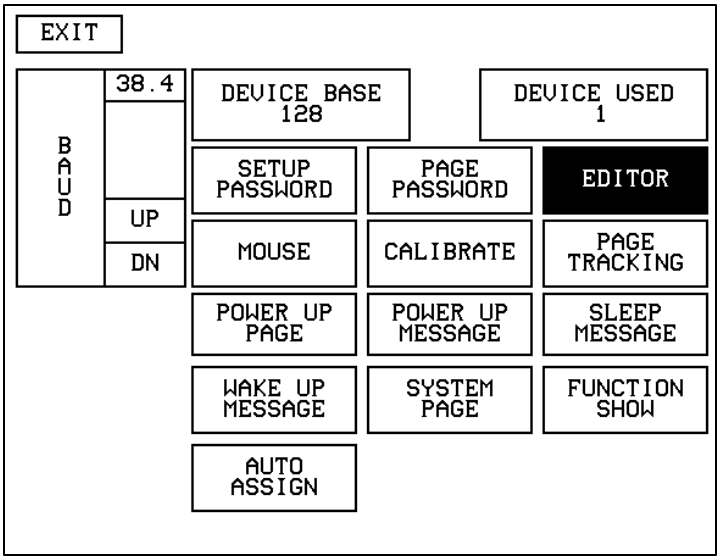
PROTECTED SETUP page

4. Press EDITOR to enable the Editor mode. The active mode of the EDITOR button is shown in Figure 31.

5. Press EXIT to close the PROTECTED SETUP page and return to the SETUP page in Editor mode.

Figure31

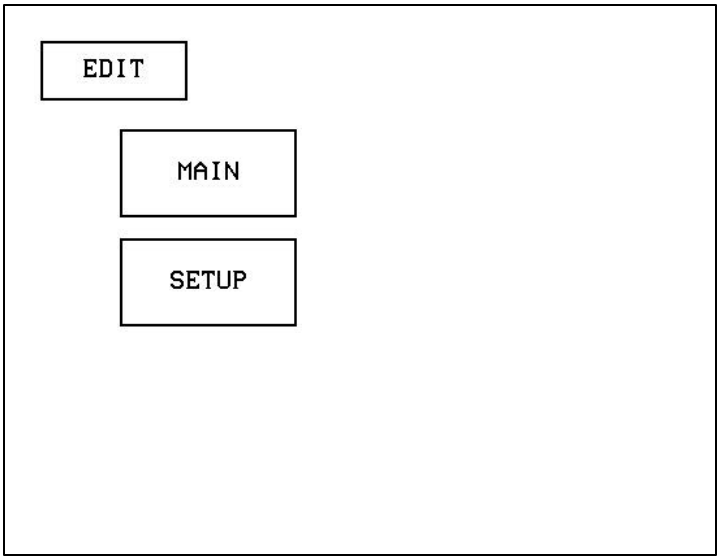
Active EDITOR button in the PROTECTED SETUP page



6. Press EXIT twice to return to the MAIN page. The EDIT button appears at the top of the MAIN page, indicating that the Editor mode is active (Figure 32).

Figure32

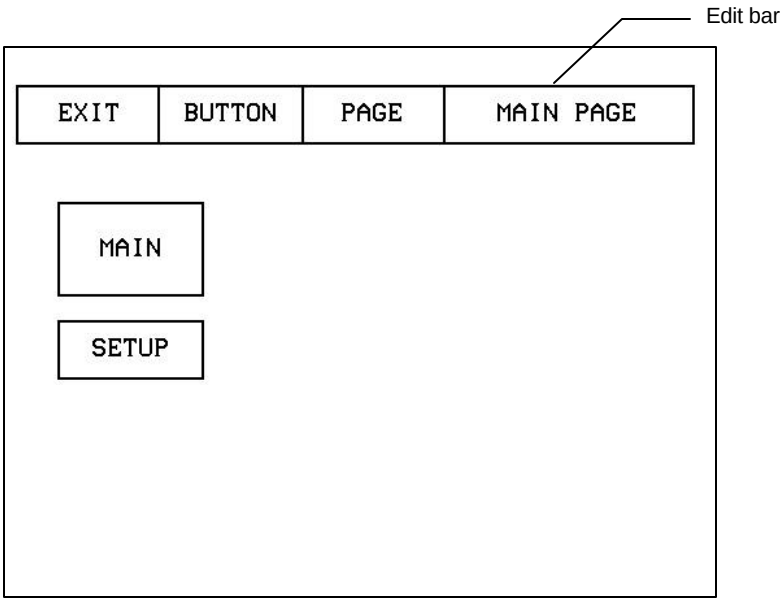
MAIN page with EDIT button



7. Press the EDIT button to open the Edit bar, which appears at the top of the page (Figure 33).

Figure33

MAIN PAGE and Edit bar



Creating a Page

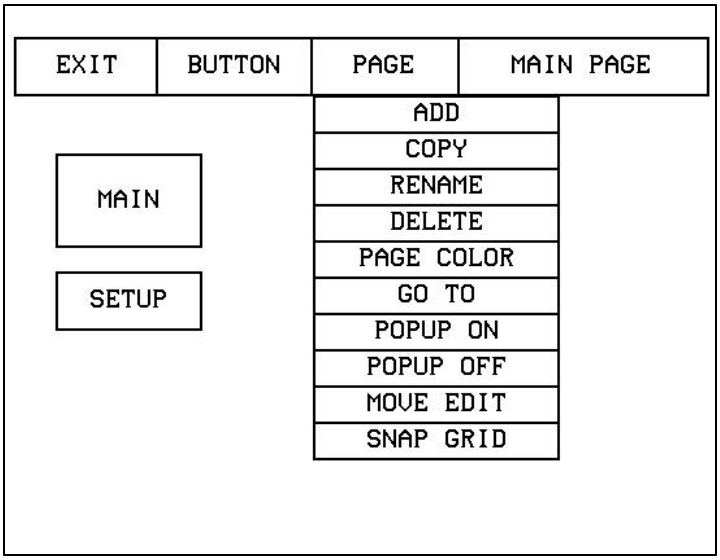
Use the PAGE menu option in the Edit bar to create Touch Panel pages.

Adding a page

1. Press PAGE on the Edit bar to open the Page menu options(Figure 34).

Figure34

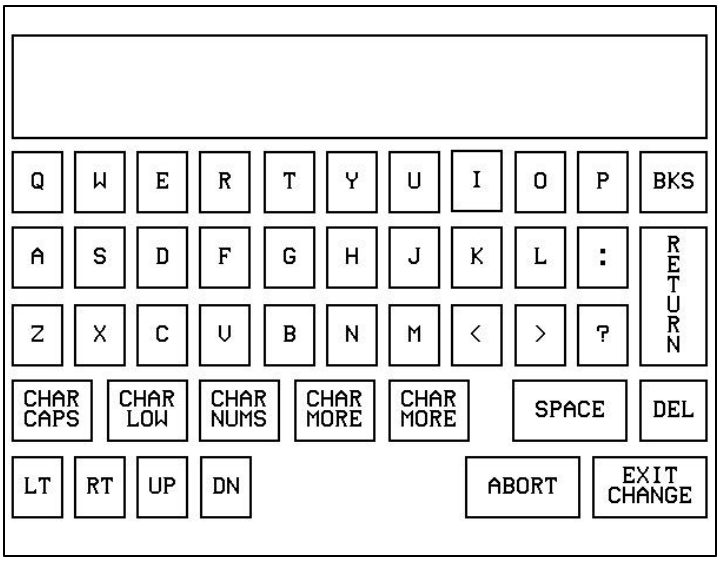
PAGE menu options



2. Press the ADD option to add a new Touch Panel page. This command opens the keyboard (Figure 35). Use the keyboard to enter a name for the new page.

Figure35

Keyboard



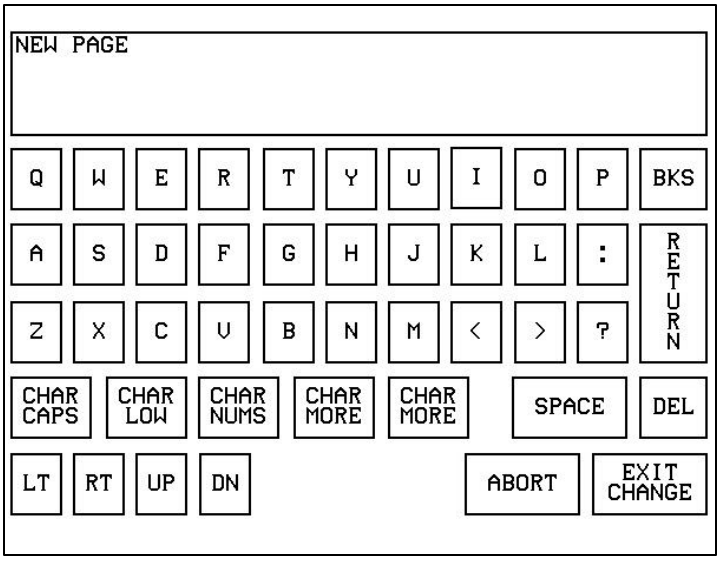
Note

Page naming does not allow you to change the font type, as is available for such things as popup pages and buttons.

3. Type NEW PAGE (Figure 36) using the keyboard. A page name can be up to 20 characters.

Figure36

Keyboard: NEW PAGE



4. Press EXIT CHANGE to add `NEW PAGE` to Touch Panel memory, close the keyboard, and return to the NEW page.

5. Press EXIT on the Edit bar.

Setting the page color

1. Press EDIT to open the Edit bar shown in Figure 37.

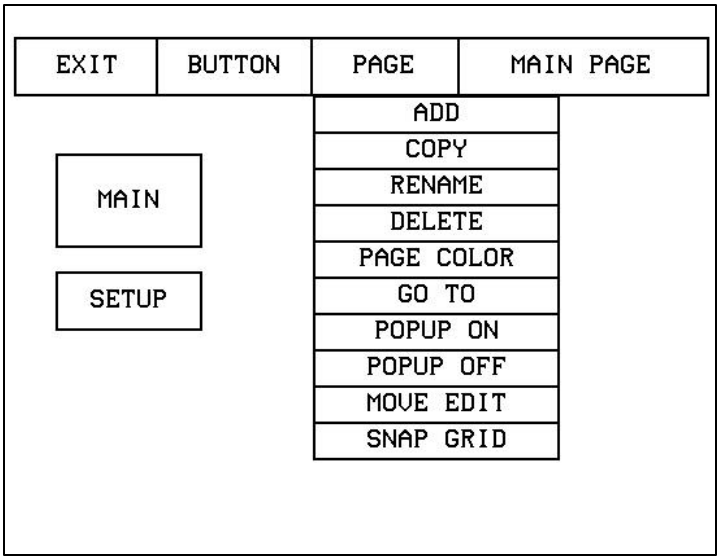
Figure37

Edit bar

2. Press PAGE on the Edit bar to open the PAGE menu options shown in Figure 38.

Figure38

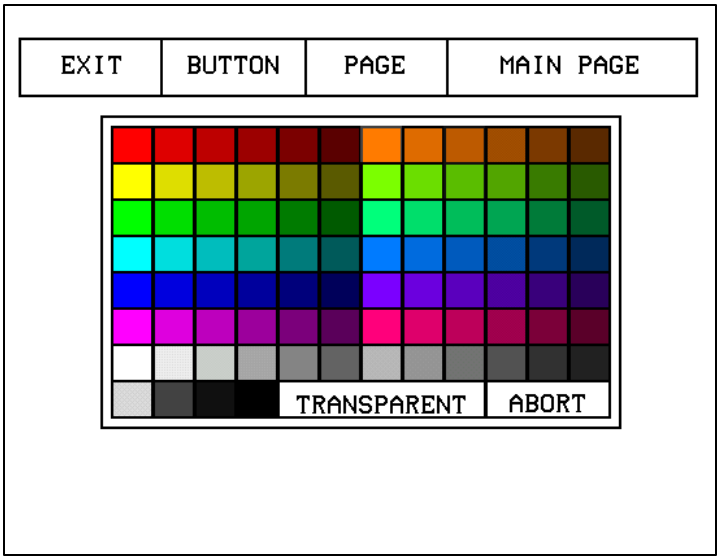
PAGE menu options



3. Press the PAGE COLOR option to open the color options shown in Figure 39.

Figure39

Color options



4. Select a page color from the palette. The page automatically changes to the new color.

Creating a Button

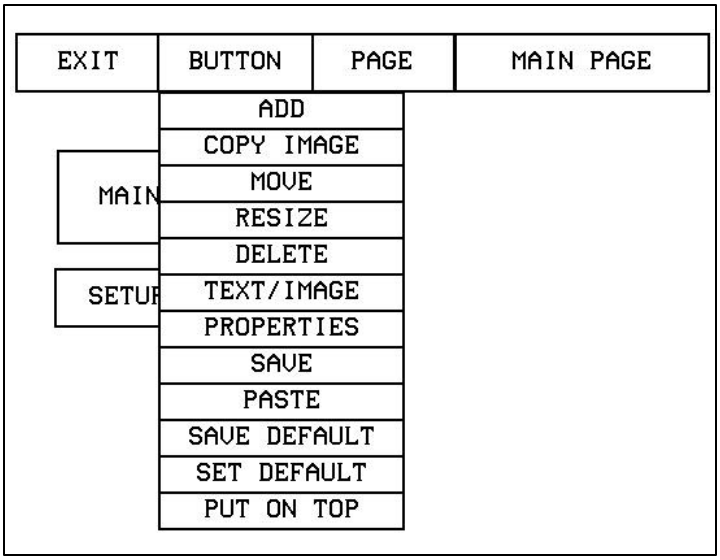
Use the BUTTON menu option in the Edit bar to create Touch Panel buttons.

Adding a button

1. Press EDIT to open the Edit bar (Figure 37).
2. Press BUTTON on the Edit bar to open the BUTTON menu options shown in Figure 40.

Figure40

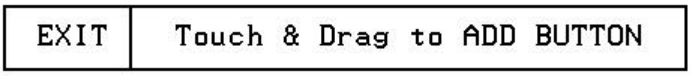
BUTTON menu options



3. Press ADD to add a button to the new page. The message bar shown in Figure 41 appears. Touch and drag to add a button. The first touch point is the upper-left corner of the button.

Figure41

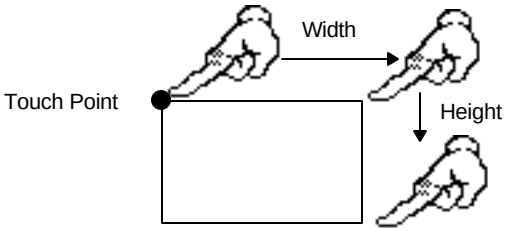
ADD BUTTON message bar



4. Push on the panel and drag your finger horizontally and down across the screen to set the height and width of the button, as shown in Figure 42.

Figure42

Add a button example



Note

You can add more than one button at this time.

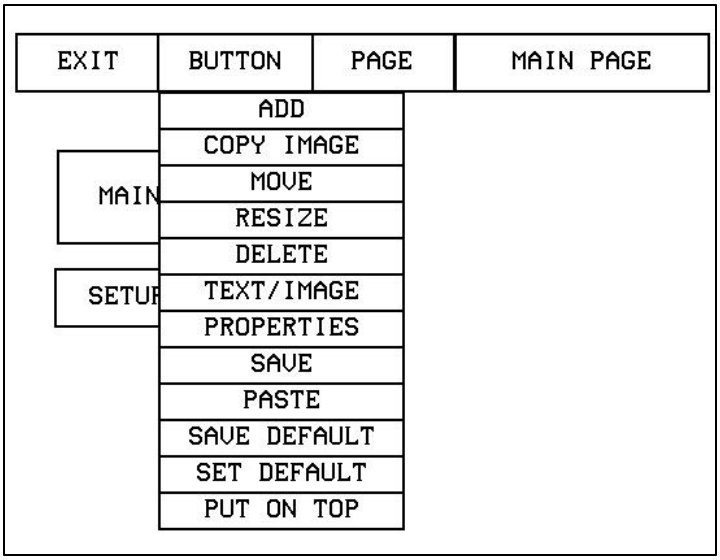
5. Release your finger from the panel to record the button dimensions into the panel memory.
6. Press EXIT in the Edit bar.

Resizing a button

1. Press EDIT to open the Edit bar.
2. Press BUTTON on the Edit bar to open the menu options shown in Figure 43.

Figure43

BUTTON menu options



3. Press the RESIZE option to resize the button when the message bar (Figure 44) appears.

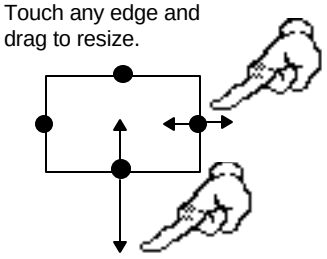
Figure44

RESIZE BUTTON message bar

4. Push the edge of the button, and drag your finger horizontally across the screen and down to resize the button (Figure 45).

Figure45

Resizing a button



5. Release your finger from the panel to record the button dimensions into the panel memory.

6. Press EXIT in the Edit bar.

Button Properties

Use the PROPERTIES option of the BUTTON menu in the Edit bar to set button borders, page flips, button colors for channel on and off conditions, and channel and variable text codes.

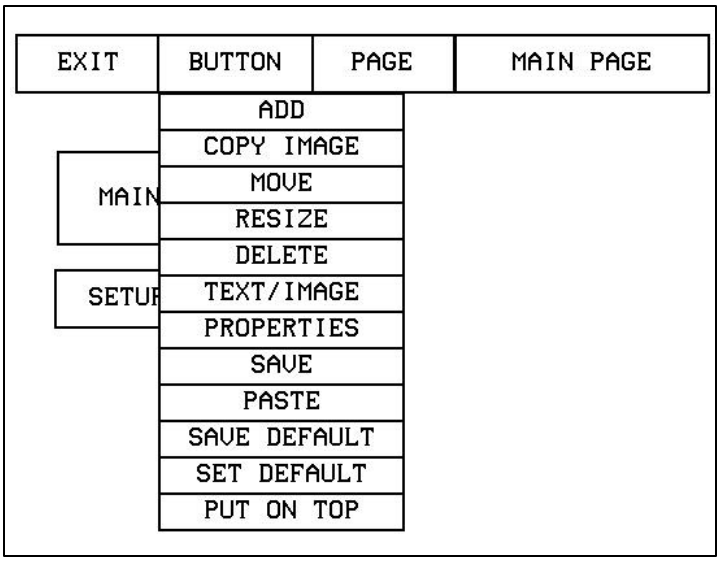
Setting the button properties

1. Press EDIT to open the Edit bar (Figure 37).

2. Press BUTTON on the Edit bar to open the BUTTON menu options shown in Figure 46.

Figure46

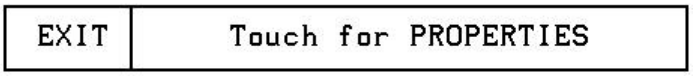
BUTTON menu options



3. Press PROPERTIES to open the Edit bar shown in Figure 47.

Figure47

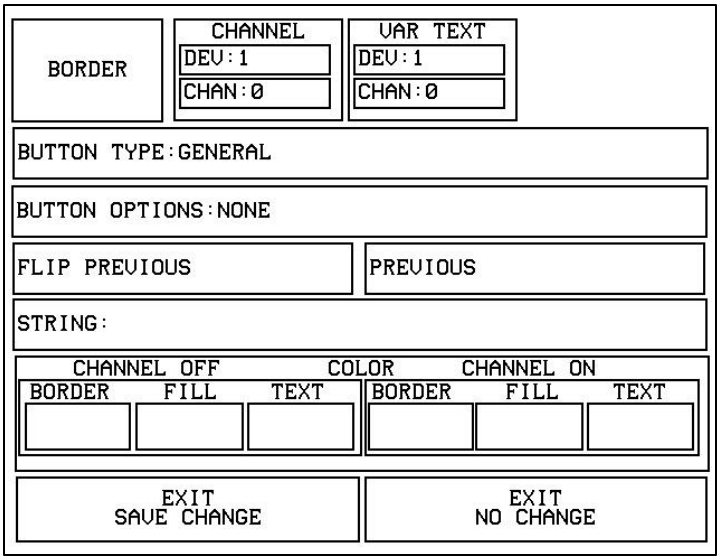
PROPERTIES message bar



4. Press the button you just added to open the BUTTON PROPERTIES page shown in Figure 48. This page lists the properties of the selected button.

Figure48

BUTTON PROPERTIES page

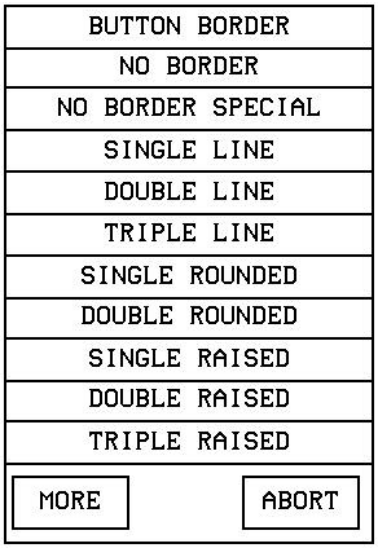


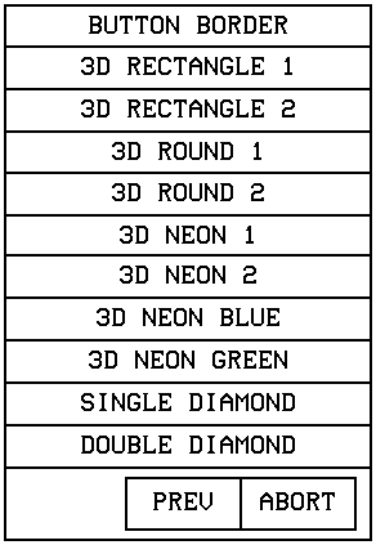
Setting the border

1. Press BORDER in the BUTTON PROPERTIES page to open the BUTTON BORDER options pages shown in Figure 49.

Figure49

BUTTON BORDER options pages





Note

Use the MORE button to view other button border options.

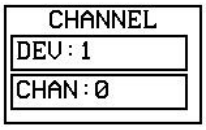
2. Press 3D RECTANGLE 1 to set the button border to 3D RECTANGLE 1 style. The BORDER button in the BUTTON PROPERTIES page reflects the selected border type. In this case, the button changes to the 3D rectangle border.

Setting the channel code

1. The two fields to be set for the button channel code are DEV (device) and CHAN (channel) as shown in Figure 50.

Figure50

CHANNEL code buttons



2. Press DEV to open a keypad and set the device number.
3. Type `1, 2,3,` or `4` in the keypad. The device number specifies the device for which the selected channel's feedback is displayed.
4. Press ENTER to store the device code in memory, close the keypad, and return to the BUTTON PROPERTIES page.
5. Press CHAN to open a keypad and set the channel number.
6. Type a channel value of `1` to `255` in the keypad. The AXCESS software program uses the channel code number to identify the button and its operations.
7. Press ENTER to store the channel code in memory, close the keypad, and return to the BUTTON PROPERTIES page.

Note

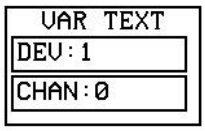
The channel code(s) for non-active buttons is 0, and active buttons is1 through 255.

Setting the variable text code

1. The two fields to be set for the button variable text code are DEV (device) and CHAN (channel) as shown in Figure 51.

Figure51

VARIABLE TEXT code buttons



2. Press DEV to open a keypad and set the device number.

3. Type `1, 2, 3, or 4` in the keypad. The device number specifies the device for which the selected channel's feedback is displayed.
4. Press ENTER to store the device number in memory, close the keypad, and return to the BUTTON PROPERTIES page.
5. Press CHAN to open a keypad and set the channel number.
6. Type a channel value of `1` to `255` in the keypad. The AXCESS software program uses the channel code number to identify the button and its operations.
7. Press ENTER to store the channel code in memory, close the keypad, and return to the BUTTON PROPERTIES page.

Setting the page flip

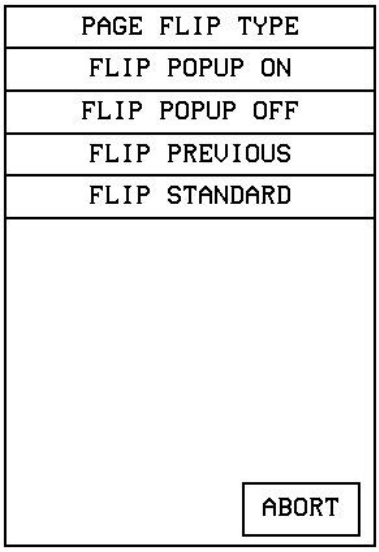
1. Press the left Page `FLIP` box in the Button Properties page (Figure 52) to open the Page Flip Type list (Figure 53).

Figure52

Page FLIP boxes

Figure53

PAGE FLIP TYPE list



Note

When selecting the FLIP PREVIOUS option in the Page FLIP box, the POPUP PAGE menu does not appear.

2. Press FLIP STANDARD.

3. Press the right page FLIP box (Figure 52) to open the PAGE FLIP TYPE list (Figure 53).

4. Press MAIN PAGE to set the page flip to the MAIN page.

Note

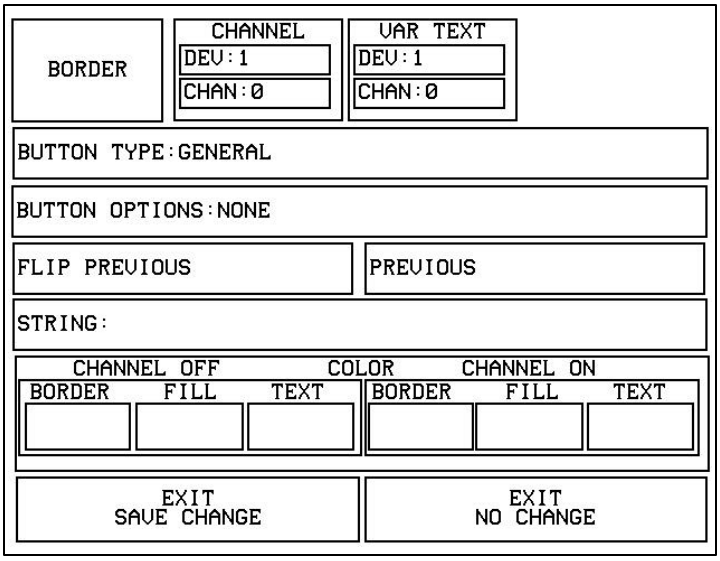
The right page FLIP will display the existing Touch Panel pages. If the desired page is not present, then it has not been created.

Setting the button colors for channel-off conditions

1. Press the button to open the BUTTON PROPERTIES page shown in Figure 54.

Figure54

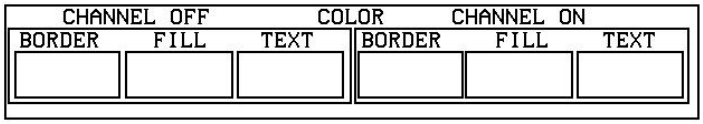
BUTTON PROPERTIES page



2. Press BORDER in the COLOR (CHANNEL OFF) section of the BUTTON PROPERTIES page (Figure 55).

Figure55

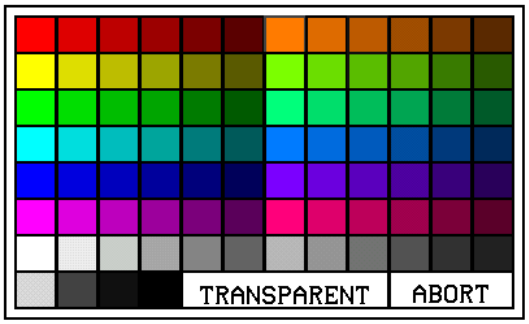
CHANNEL OFF/ON COLOR settings box



3. The color options (Figure 56) appear.

Figure56

Color options



4. Press black to set the border color to black.
5. Press the FILL button in the BUTTON PROPERTIES page to re-open the color options.
6. Press white to set the fill color to white.
7. Press the TEXT button to re-open the color options.
8. Press red to set the text color to red.
9. Press EXIT SAVE CHANGE in the BUTTON PROPERTIES page to store the new button properties in memory and return to the current page.
10. Press EXIT on the Edit bar to exit PROPERTIES mode.

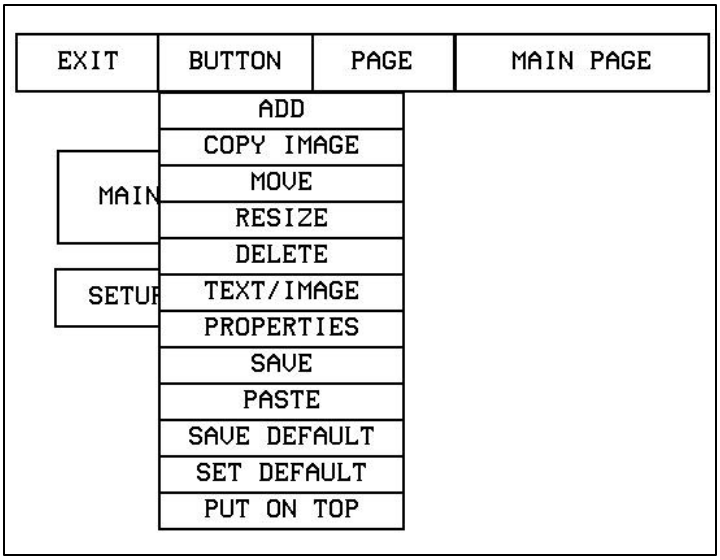
Adding text to a button

Use the BUTTON OPTION in the Edit bar to add text to buttons, joysticks, and bargraphs.

1. Press EDIT to open the Edit bar.
2. Press BUTTON on the Edit bar to open the BUTTON menu options list as shown in Figure 57.

Figure57

BUTTON menu options



3. Press TEXT/IMAGE to add text in the selected button. The message bar shown in Figure 58 appears.

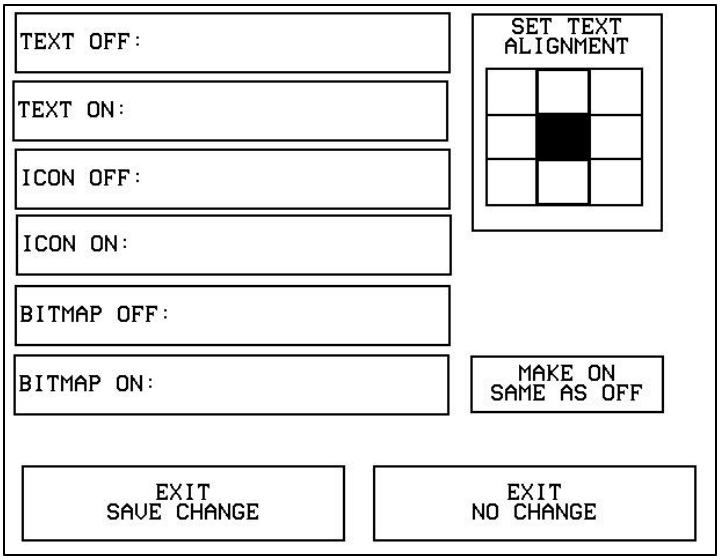
Figure58

TEXT/IMAGE message bar

4. Press the on-screen button to open the TEXT/IMAGE page shown in Figure 59.

Figure59

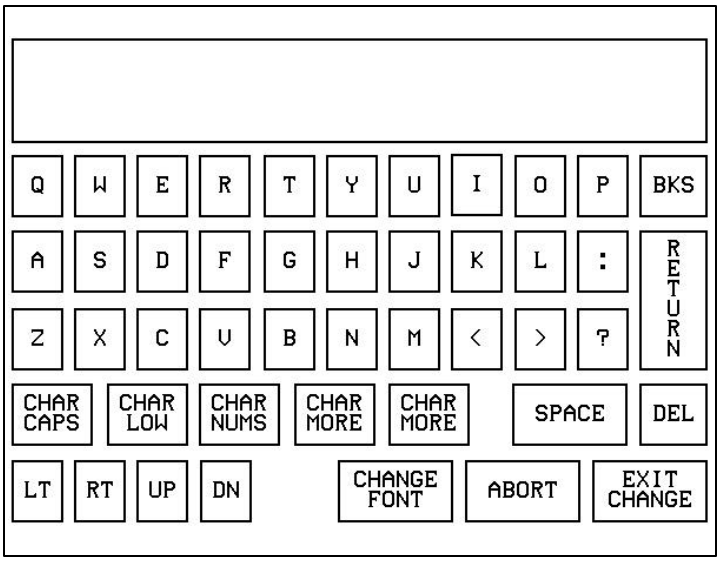
TEXT/IMAGE page



5. Press TEXT OFF to open the keyboard shown in Figure 60.

Figure60

Keyboard



Note

The CHANGE FONT key only appears when changing the font of a function button and does not apply to popup pages.

Note

You can not create or edit buttons with Unicode Fonts within the Touch Panel. Any use of the TEXT/IMAGE button to alter or create a Unicode Font supported button must be done in TPDesign 3.

6. Type `MAIN PAGE`. The text appears in the message box at the top of the keyboard. If you exceed the space in the button, the Touch Panel generates an error message. Change the size of the button or reduce the text string to clear the error message.
7. Press EXIT CHANGE to close the keyboard and return to the TEXT/IMAGE page.
8. Press MAKE ON SAME AS OFF to set the text for both On and Off states of the button.
9. Press EXIT SAVE CHANGE to close the TEXT/IMAGE page and return to the NEW page.
10. Press EXIT in the Edit bar to exit Edit Text/Image mode.

Button Properties for External Buttons

Note

Although these buttons don't appear on-screen, their functionality can be set just as any other button on the Touch panel. They will have no on-screen presence with such things as colors, borders, and names. For further information on the PROPERTIES page features see *Properties Page-Button Type(s)* sections.

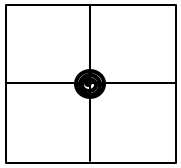
If your Touch Panel comes with external buttons, these can be configured with features similar to on-screen buttons, for more information see the *Creating a Button* subsection. Use the PROPERTIES option to assign properties to external pushbuttons. The BUTTON OPTIONS and VARIABLE TEXT features within the PROPERTIES page will not appear. Although the Border and Color sections of this page appear, they are of no use by external buttons since they do not appear on-screen.

Creating a Joystick

You can create a joystick with the BUTTON TYPE option in the BUTTON PROPERTIES page. Joysticks (Figure 61) are vertical and horizontal direction controllers you use for camera operations such as pan and tilt.

Figure61

Joystick



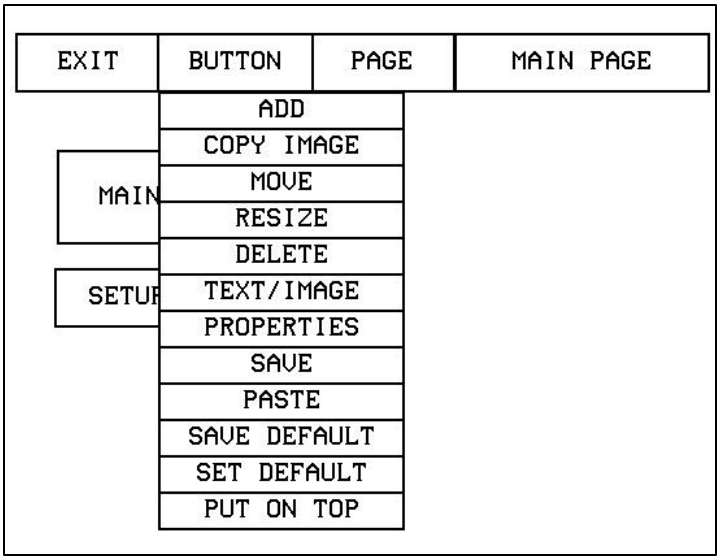
Before you start, make sure to connect the Touch Panel to your AXCESS Central Controller. Otherwise, the joystick will not work properly. For more information, refer to the *Touch Panel Program Reference* section in this manual.

Adding a joystick to a page

1. Create a new button using the ADD option in the BUTTON menu described in the *Creating a Button* subsection.
2. Press BUTTON on the Edit bar to open the BUTTON menu options shown in Figure 62.

Figure62

BUTTON menu options



3. Press the PROPERTIES option to open the message shown in Figure 63.

Figure63

PROPERTIES message bar

4. Next press the new button.

5. Press BUTTON TYPE (Figure 64) to open the BUTTON TYPE list shown in Figure 65.

Figure64

BUTTON PROPERTIES page

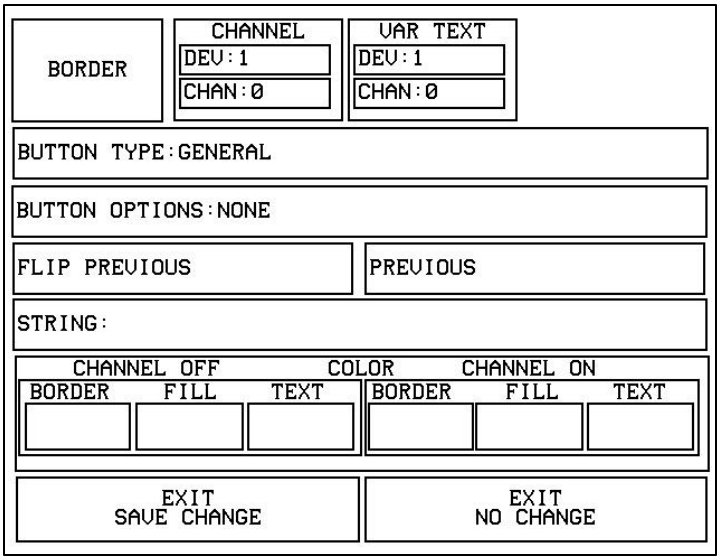
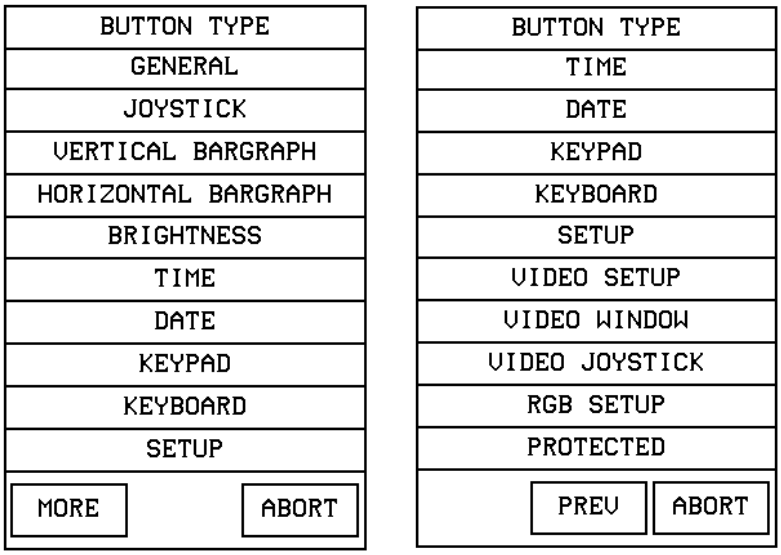


Figure65

BUTTON TYPE menu

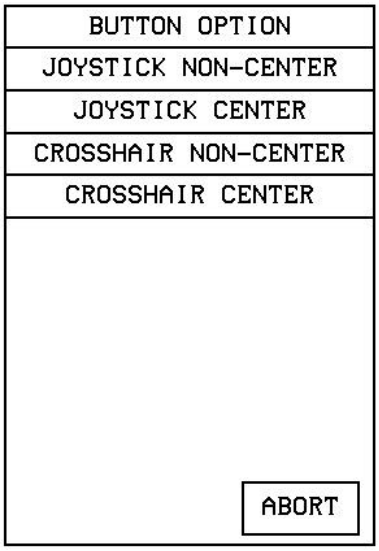


6. Press JOYSTICK to set the selected button as a joystick.

7. Press BUTTON OPTION on the BUTTON PROPERTIES page to open the list of joystick button options as shown in Figure 66.

Figure66

JOYSTICK BUTTON OPTIONS list



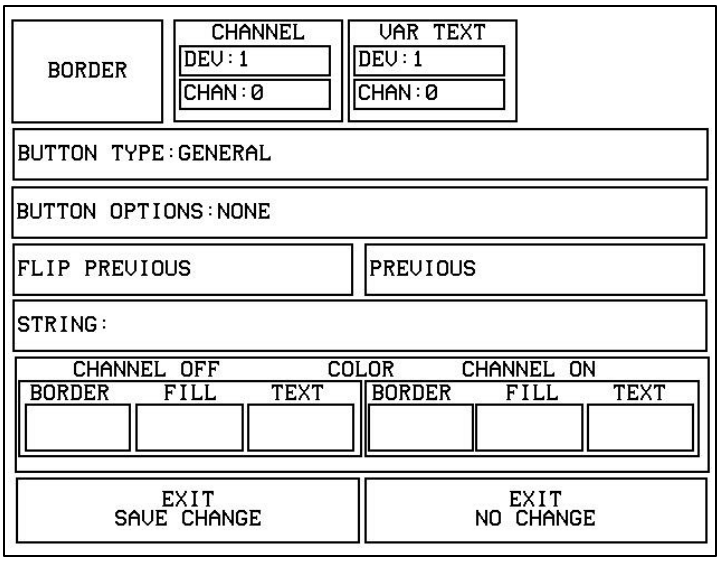
8. Press CROSSHAIR CENTER to set a crosshair in the center of the joystick button and return to the BUTTON PROPERTIES page.
9. Press EXIT SAVE CHANGE to return to the MAIN page.

Setting the joystick properties

1. Press EDIT, BUTTON, and select PROPERTIES.
2. Press the new button you just created to open the Button Properties page (Figure 67).

Figure67

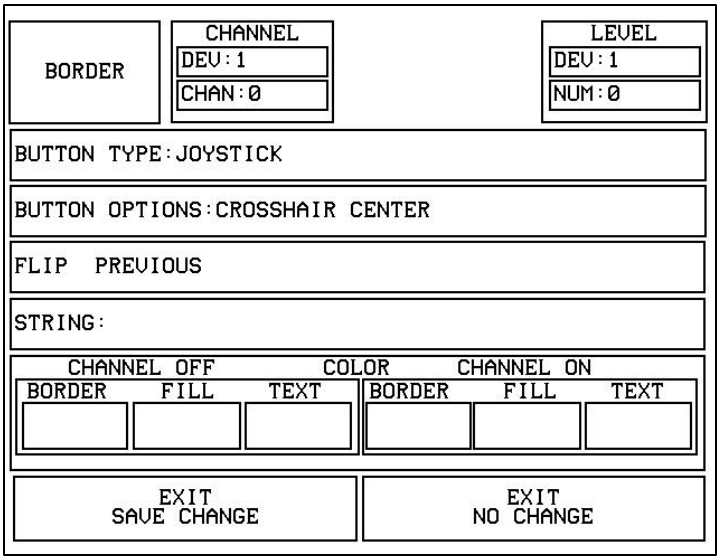
BUTTON PROPERTIES page



3. Press BUTTON TYPE to open Figure 65.
4. Press the JOYSTICK button in the BUTTON TYPE list to open the BUTTON PROPERTIES page in Figure 68.

Figure68

BUTTON PROPERTIES (JOYSTICK) page



Note

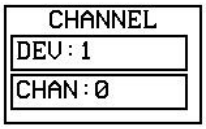
If you continued the procedures from the Adding a joystick to a page subsection, this will be the button's properties page when you select it.

Setting the channel code

1. The two fields to be set for the joystick channel code are DEV (device) and CHAN (channel) as shown in Figure 69.

Figure69

Joystick CHANNEL code buttons



2. Press DEV to open a keypad and set the joystick's device number.
3. Type `1, 2, 3,` or `4` in the keypad. The device number specifies the device number for the selected channel's feedback is displayed.
4. Press ENTER to store the device code in memory, close the keypad, and return to the BUTTON PROPERTIES page.
5. Press CHAN to open the keypad and set the channel number.
6. Type in a channel value of `1` to `255` in the keypad. The AXCESS software program uses the channel code number to identify the button and programmed operations.

Note

The channel code for non-active buttons is 0, and for active buttons it's 1 through 255.

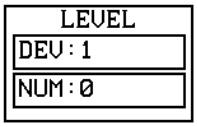
7. Press ENTER to store the channel code in memory, close the keypad, and return to the BUTTON PROPERTIES page.

Setting the level code

1. There are two fields in the LEVEL section: DEV (device) and NUM (number), as shown in Figure 70.

Figure70

Level code buttons



2. Press DEV to open a keypad and set the device code.
3. Type `1, 2, 3, or 4` in the keypad. The AXCESS software program uses device codes 1 through 4 to identify the Touch Panel. For more information, refer to the *Touch Panel Program Reference* section.
4. Press ENTER to store the level device code in memory, close the keypad, and return to the BUTTON PROPERTIES page.
5. Press NUM in the LEVEL section to open a keypad and set the level number assigned to the device.
6. Type 1 in the keypad.
7. Press ENTER to store the level number in memory, close the keypad, and return to the BUTTON PROPERTIES page.

Note

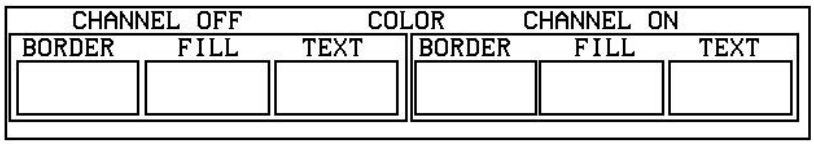
Each device can have from 1-8 levels except for joysticks where the range is from 1-7.

Setting the joystick colors for channel-off conditions

1. Press BORDER in the COLOR (CHANNEL OFF) section of the BUTTON PROPERTIES page (Figure 71) to set the border color.

Figure71

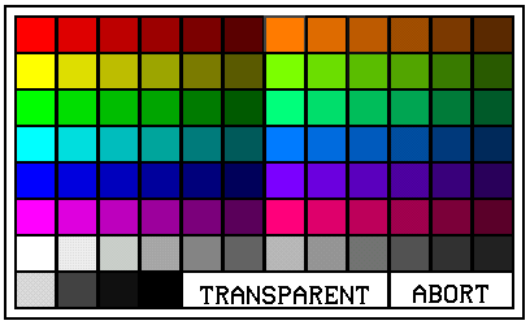
CHANNEL OFF/ON COLOR settings box



2. Press black on the color palette (Figure 72) to set the border color.

Figure72

Color options



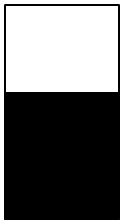
3. Press the FILL button in the Joystick PROPERTIES page to open the color options again.
4. Press white to set the fill color.
5. Press the TEXT button to open the color options again.
6. Press red to set the text color.
7. Press EXIT SAVE CHANGE in the BUTTON PROPERTIES page to store the new joystick properties in memory and return to the current page.
8. Press EXIT in the Edit bar to exit PROPERTIES mode.

Create a Bargraph

Bargraphs (Figure 73) are level monitors or adjustable level controls that you can configure to monitor audio outputs, lighting levels, and adjusting audio line or light levels. Before you start, make sure to connect the Touch Panel to your AXCESS Central Controller. Otherwise, the bargraph will not work properly. Refer to the *Touch Panel Program Reference* section for detailed information.

Figure73

Bargraph

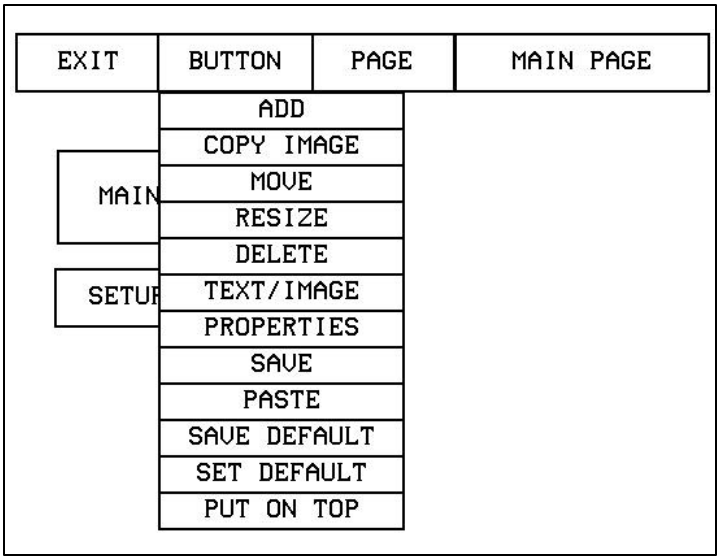


Adding a bargraph to a page

1. Create a new button using the ADD option in the BUTTON menu as described earlier in this section.
2. Press EDIT to open the Edit bar (Figure 37).
3. Press BUTTON in the Edit bar to open the BUTTON menu options shown in Figure 74.

Figure74

BUTTON menu options



4. Press PROPERTIES in the BUTTON menu to open the message bar shown in Figure 75.

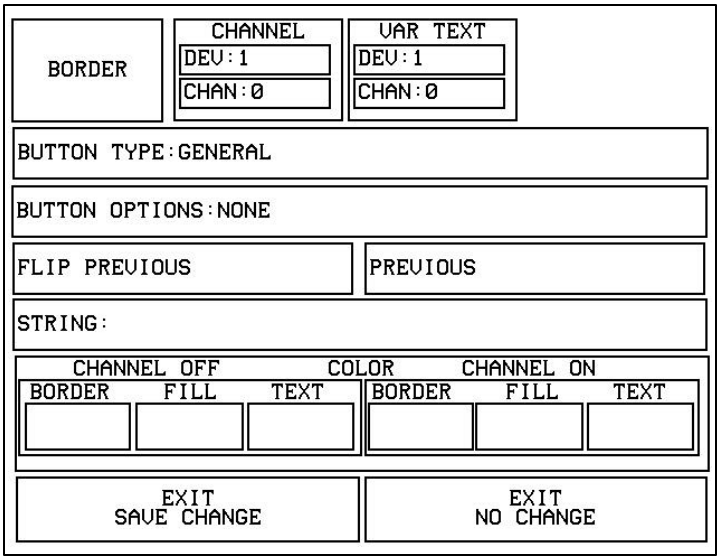
Figure75

Message bar

5. Press the new button to open the BUTTON PROPERTIES page shown in Figure 76.

Figure76

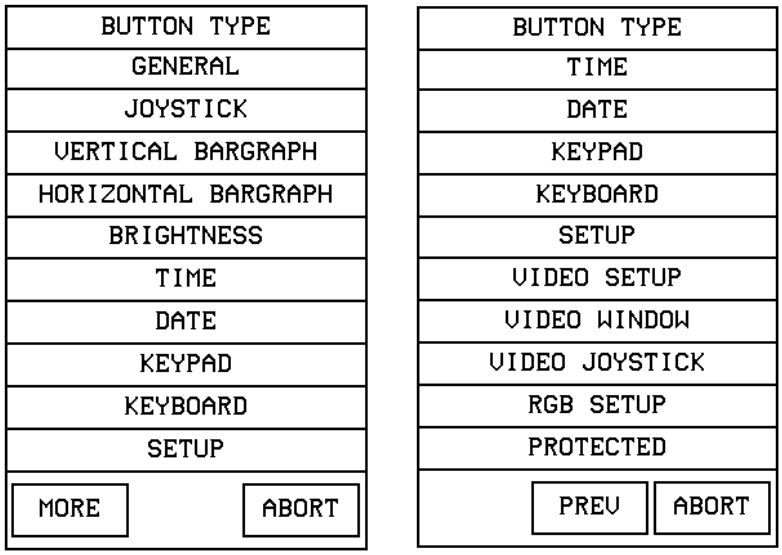
BUTTON PROPERTIES page



6. Press BUTTON TYPE to open the BUTTON TYPE list shown in Figure 77.

Figure77

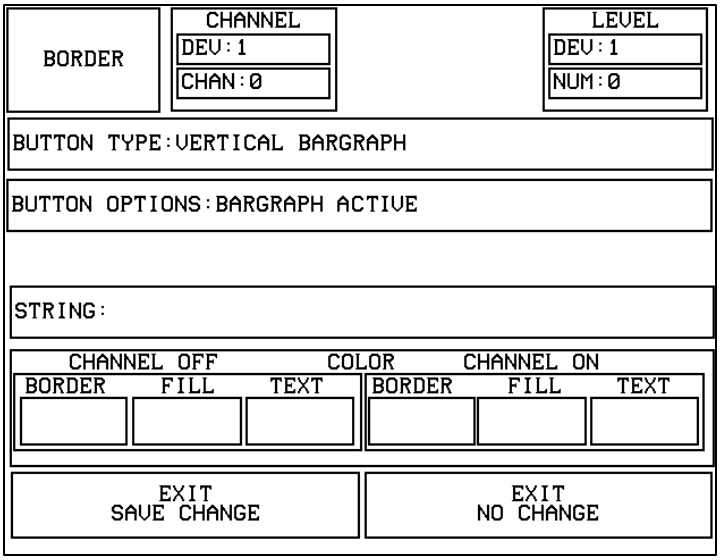
BUTTON TYPE menu



7. Select VERTICAL BARGRAPH to open the VERTICAL BARGRAPH PROPERTIES page shown in Figure 78.

Figure78

VERTICAL BARGRAPH PROPERTIES page



Setting the bargraph properties

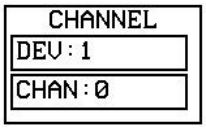
Use the VERTICAL BARGRAPH PROPERTIES page shown in Figure 78 to set channel, level, and button colors.

Setting the channel code

1. The two fields to be set for the bargraph channel code are DEV (device) and CHAN (channel) as shown in Figure 79.

Figure79

Bargraph CHANNEL code buttons



2. Press DEV to open a keypad and set the device number.
3. Type `1, 2, 3, or 4` in the keypad. The device number specifies the device for which the selected channel's feedback is displayed.
4. Press ENTER to store the device code in memory, close the keypad, and return to the VERTICAL BARGRAPH PROPERTIES page.
5. Press CHAN to open a keypad and set the channel number.

Note

The channel code for non-active buttons is 0, and 1 through 255 for active buttons.

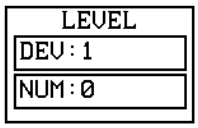
6. Type in a channel value of `1` to `255` in the keypad. The AXCESS software program uses the channel code number to identify the button and its operations.
7. Press ENTER to store the channel code in memory, close the keypad, and return to the VERTICAL BARGRAPH PROPERTIES page.

Setting the level code

1. There are two fields in the LEVEL selection: DEV (device) and NUM (number) as shown in Figure 80.

Figure80

LEVEL code buttons



2. Press DEV in the LEVEL section to open a keypad.
3. Type `1, 2, 3,` or `4` in the keypad. The AXCESS software program uses device codes 1 through 4 to identify the Touch Panel. Refer to the *Touch Panel Program Reference* in this manual for more information.
4. Press ENTER to store the level device code in memory, close the keypad, and return to the VERTICAL BARGRAPH PROPERTIES page.

Note

Each device can have from 1-8 levels except for joysticks where the range is from 1-7.

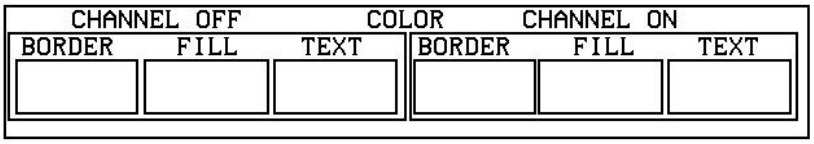
5. Press NUM in the LEVEL section to open a keypad and set the level number assigned to the device.
6. Type 1in the keypad.
7. Press ENTER to store the level number in memory, close the keypad, and return to the VERTICAL BARGRAPH PROPERTIES page.

Setting the bargraph colors for channel-off conditions

1. Press BORDER in the COLOR (CHANNEL OFF) section of the BARGRAPH PROPERTIES page (Figure 81) to set the border color.

Figure81

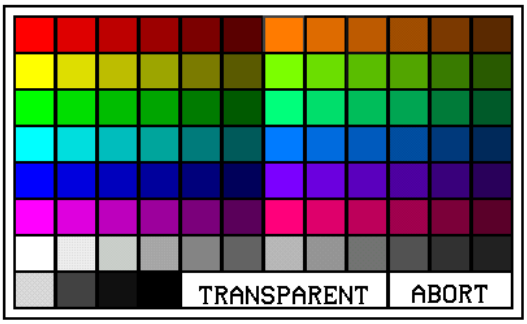
CHANNEL OFF/ON color settings box



2. Press black in the color palette (Figure 82) to set the border color.

Figure82

Color palette



3. Press the FILL button in the BARGRAPH PROPERTIES page to re-open the color options.
4. Press white to set the fill color.
5. Press the TEXT button to re-open the color options.
6. Press red to set the text color.
7. Press EXIT SAVE CHANGE in the VERTICAL BARGRAPH PROPERTIES page to store the new joystick properties in memory and press EXIT to return to the current page.

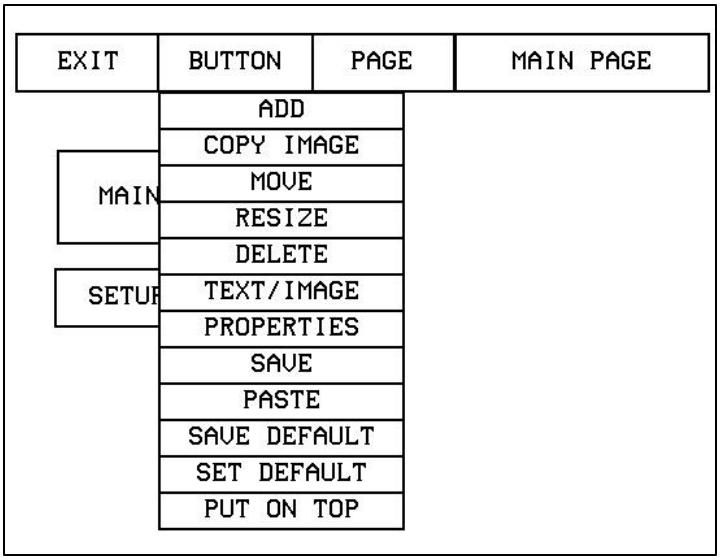
Linking the New Page to the Main Page

Use the ATTRIBUTES page to link buttons to pages. This operation requires changing the button text and setting a page flip.

1. Press the MAIN PAGE button to flip to the MAIN page.
2. Press EDIT to open the Edit bar.
3. Press BUTTON on the Edit bar to open the BUTTON menu options list as shown in Figure 83.

Figure83

BUTTON menu options



4. Press TEXT/IMAGE to change the MAIN PAGE button text when the message bar (Figure 84) appears.

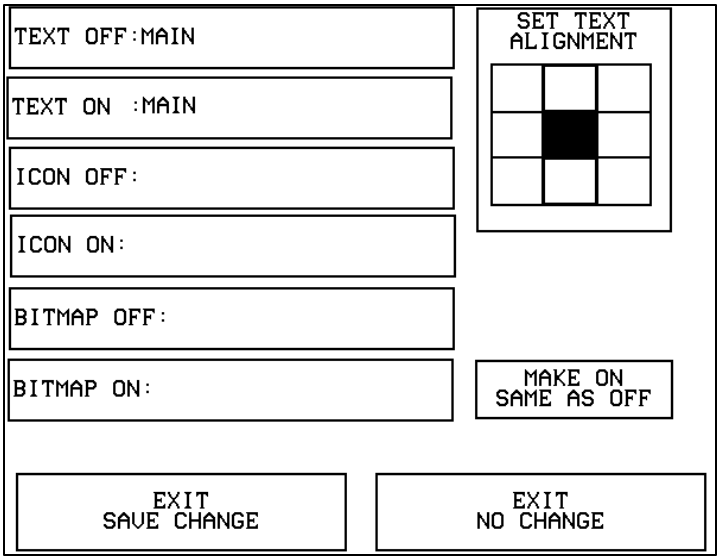
Figure84

Message bar

5. Press the MAIN button to open the TEXT/IMAGE page shown in Figure 85.

Figure85

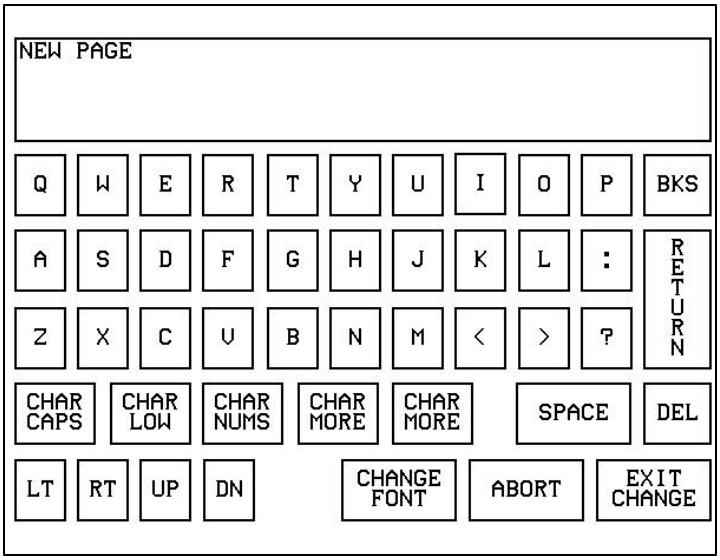
TEXT/IMAGE page



6. Press TEXT OFF to open the keyboard.
7. Press DEL four times to delete `MAIN`.
8. Type `NEW PAGE`. The text appears in the keyboard window shown in Figure 86.

Figure86

Keyboard: `New Page`



9. Press EXIT CHANGE to close the keyboard and return to the TEXT/IMAGE page.
10. Press MAKE ON SAME AS OFF to set the text for the button's On and Off states.
11. Press EXIT SAVE CHANGE to close the TEXT/IMAGE page and return to the MAIN page.
12. Press EDIT to open the Edit bar.
13. Press BUTTON to open the BUTTON OPTION menu.
14. Press PROPERTIES in the BUTTON OPTION menu to open the message bar shown in Figure 87.

Figure87

EDIT PROPERTIES message bar

15. Press the NEW PAGE button to open the BUTTON PROPERTIES page.

16. In the BUTTON PROPERTIES page, use the page FLIP boxes (Figure 88) to set the page flip for the button.

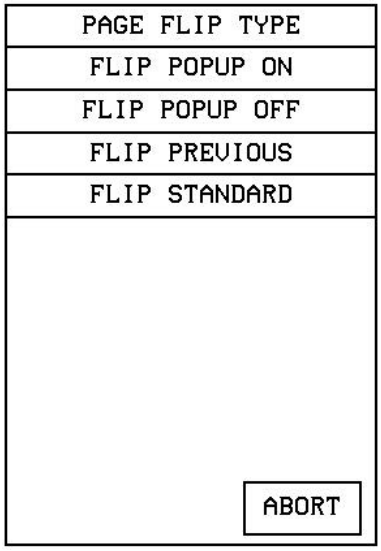
Figure88

Page FLIP buttons

17. Press the left page flip box to open the PAGE FLIP TYPE menu shown in Figure 89.

Figure89

PAGE FLIP TYPE menu

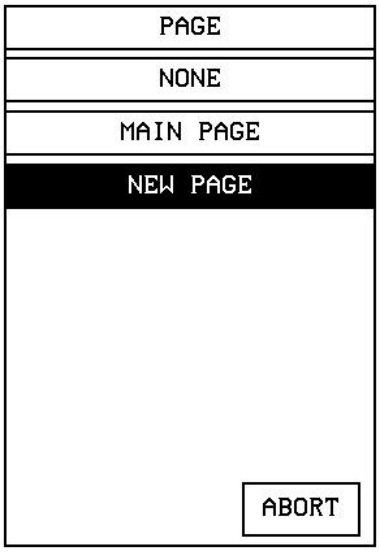


18. Press FLIP STANDARD to set the PAGE FLIP TYPE and return to the BUTTON PROPERTIES page.

19. Press the right page FLIP button to select a destination page (Figure 90).

Figure90

PAGE menu



20. Press NEW PAGE to set the page flip and return to the BUTTON PROPERTIES page.

21. Press EXIT SAVE CHANGE to save changes, close the BUTTON PROPERTIES page, and return to the Main page.

22. Press EXIT to close the Edit bar.

Exiting Edit Mode

After you finish designing Touch Panel pages, exit EDIT mode.

1. Press EXIT on the Edit bar (Figure 91) to close the Edit bar.

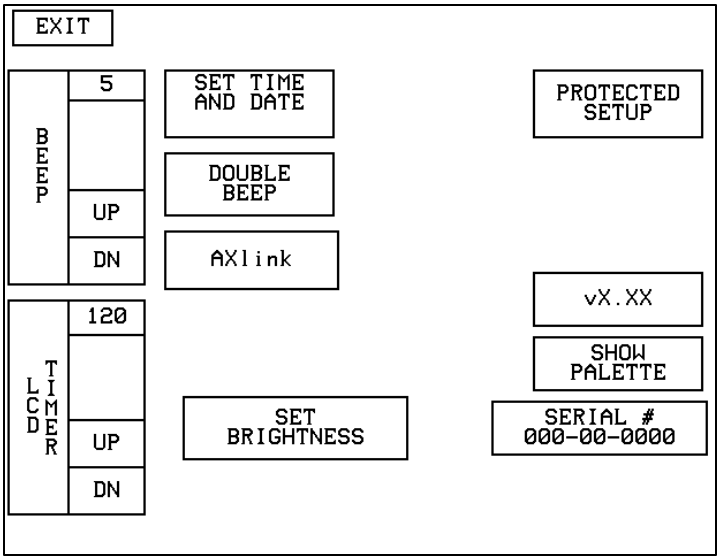
Figure91

Edit bar

2. Press SETUP to open the SETUP Page shown in Figure 92.

Figure92

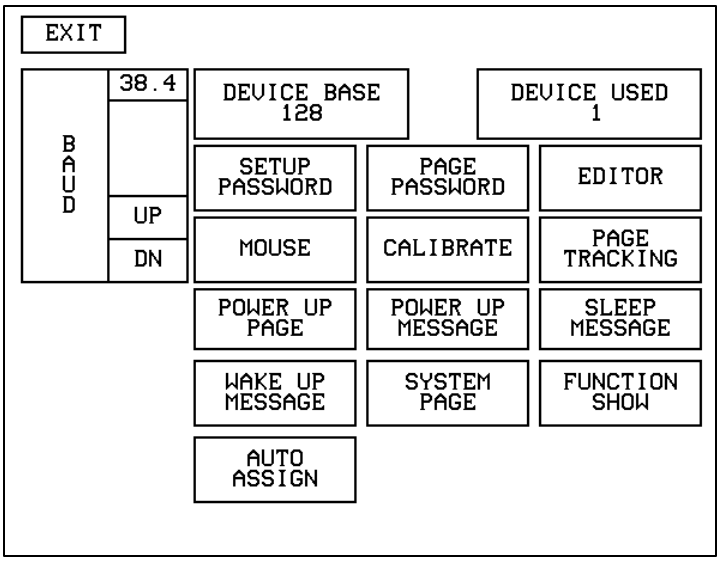
SETUP page



3. Press PROTECTED SETUP to open the PROTECTED SETUP page shown in Figure 93.

Figure93

PROTECTED SETUP page



4. Press EDITOR to toggle EDIT mode off.
5. Press EXIT to close the PROTECTED SETUP page and return to the SETUP page (Figure 92).
6. Press `EXIT` to close the Setup page and return to the Main page (Figure 95).

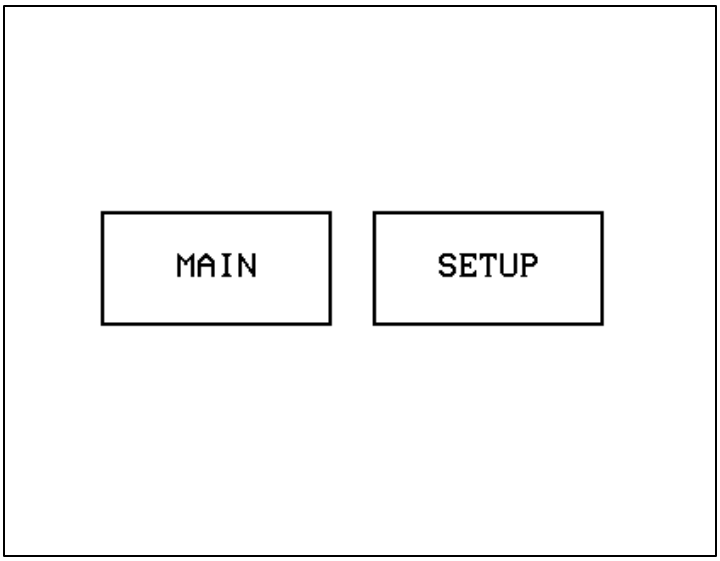
Touch Panel Program Reference

Overview

You use the SETUP and PROTECTED SETUP pages to configure the Touch Panel operates. This section contains operation flowcharts, instructions, and menu option descriptions. The buttons shown in Figure 94 appear when you power up the Touch Panel.

Figure94

MAIN page

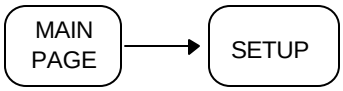


Setup Page

The flowchart in Figure 95 shows the buttons you press to access the SETUP page.

Figure95

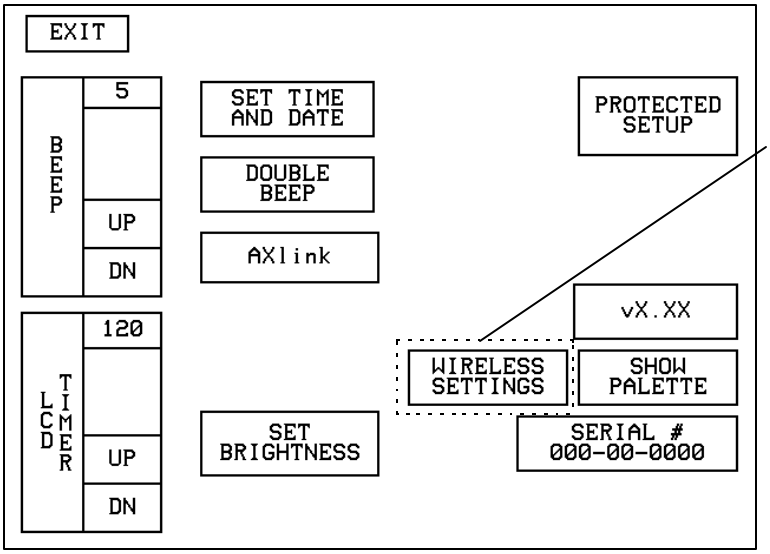
SETUP page flowchart



From the MAIN page, press the SETUP button to open the SETUP page shown in Figure 96.

Figure96

SETUP page



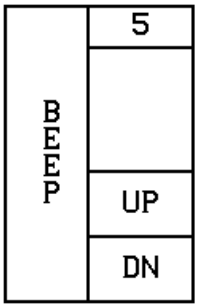
Optional WIRELESS SETTINGS button for WAV-PK and SMT-PK wireless control systems.

Beep

The BEEP button (Figure 97) sets the audible beep duration when you press the screen.

Figure97

BEEP button



Note

You can override the beep value setting using the 'ABEEP' and 'ADBEEP' Send_Commands described in the *AXCESS Programming* section.

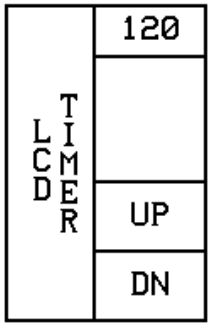
Set the BEEP button on 0 to disable the beep sound. Press the UP and DN buttons to set beep time in .10-second increments. The minimum beep time setting is 0 and the maximum is 5 (0.5 second duration).

LCD timer

The LCD TIMER button (Figure 98) sets the length of time the Touch Panel can be idle before activating screen-saver mode.

Figure98

LCD TIMER button



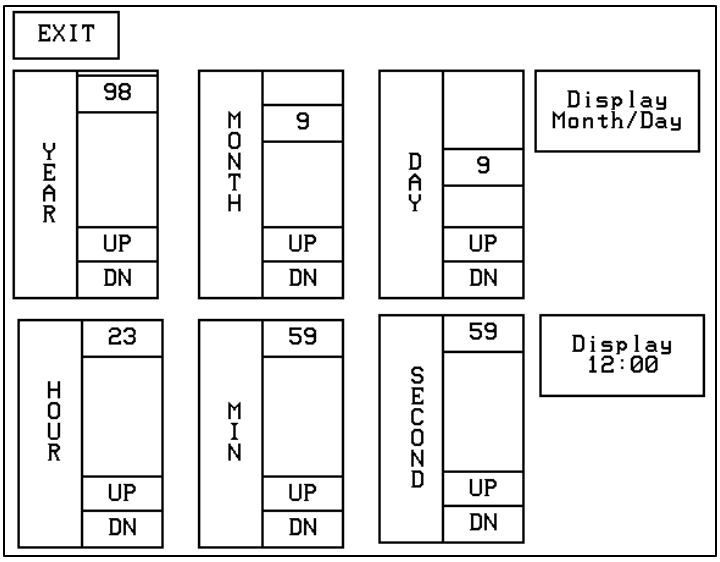
When the Touch Panel goes into screen-saver mode, the LCD is powered-down. With a setting of 5, the panel goes into screen-saver mode if there is no activity for 5 minutes. Press the UP and DN buttons to change the time that the timer screen turns on when the Touch Panel is idle. The minimum time setting is 1 and maximum is 120.

Set time and date

Press SET TIME AND DATE to open the page shown in Figure 99.

Figure99

SET TIME AND DATE page



Set the year, hour, month, minute, day, second, clock display, and day/month display.

- **YEAR** Press the UP and DN buttons to set the year.

- **HOUR** Press the UP and DN buttons to set the hour.
- **MONTH** Press the UP and DN buttons to set the month.
- **MIN** Press the UP and DN buttons to set the minute.
- **DAY** Press the UP and DN buttons to set the day.
- **SECOND** Press the UP and DN buttons to set the seconds.
- **DISPLAY MONTH/DAY, DAY/MONTH** Press to set the month and day display.
- **DISPLAY 12:00/24:00** Press to set the clock display to a 12- or 24-hour format. For example, the 12-hour clock format changes from 12:00 to 1:00, and the 24-hour clock changes from 12:00 to 13:00.

Double beep

Press the DOUBLE BEEP button (Figure 100) to toggle the double beep option on or off. The double beep sounds when you press the screen.

Figure100

DOUBLE BEEP button

Note

You can override the beep value setting using the 'ABEEP' and 'ADBEEP' Send_Commands described in the *AXCESS Programming* section.

Set the BEEP button (described earlier) to 0 to disable the double-beep sound.

AXlink, serial number, and vX.XX

The AXlink, SERIAL #, and vX.XX buttons shown in Figure 101 are information buttons (display only).

Figure101

AXlink, SERIAL #, and vX.XX button examples

The AXlink button is an AXCESS communication indicator that blinks once every second when the AXCESS Central Controller is connected to the Touch Panel. The

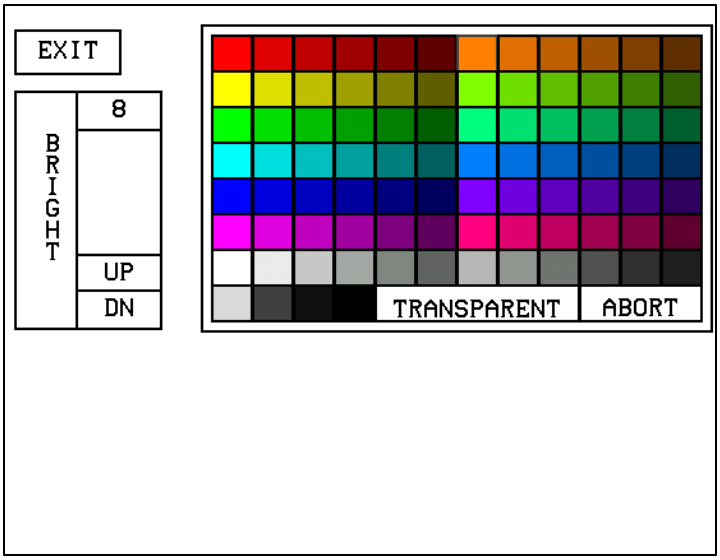
SERIAL NUMBER button shows the serial number for the Touch Panel, and the vX.XX button shows the current firmware version installed in the Touch Panel.

Set brightness

Press SET BRIGHTNESS in the SETUP page to open the page shown in Figure 102.

Figure102

SET BRIGHTNESS page



Press the UP and DN buttons to set the LCD brightness on the Touch Panel. The minimum brightness level is 1 and the maximum is 8. The TRANSPARENT and ABORT buttons are disabled on this page.

Protected Setup

The PROTECTED SETUP button opens the PROTECTED SETUP page where you set Touch Panel passwords, mouse controls, communications parameters, etc. Because there are so many operations associated with PROTECTED SETUP page, they are described in the *Protected Setup* subsection.

Show palette

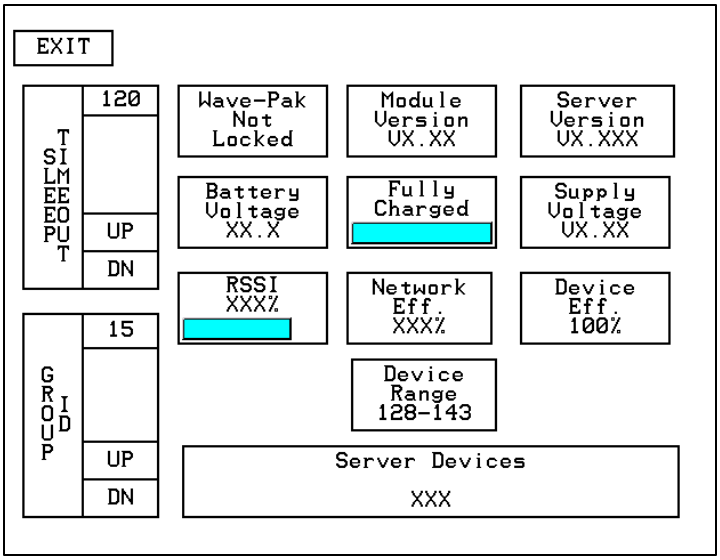
Press SHOW PALETTE in the SETUP page to open the page. This page shows the color selections available with the Touch Panel.

Wireless settings (optional WAV-PKM)

The WIRELESS SETTINGS button appears on the SETUP page when a WAV-PK WavePack is connected to the Touch Panel. The WAV-PK provides wireless two-way RF spread-spectrum Touch Panel control and contains a lead-acid rechargeable battery that supplies independent power to the panel. Refer to the *AXR-WAVES Server, WaveLink, Wireless Power Packs, Power Module AXR-WAVES WAV-CHG* instruction manual for detailed setup information Press the WIRELESS SETTINGS button to open the optional page shown in Figure 103.

Figure103

WAV-PK page



The Wave-Pack page shows the following information:

- **SLEEP TIMEOUT** Press the UP and DN buttons to set the sleep time. The minimum sleep time is 0 (off) and maximum is 120 minutes. When the Touch Panel goes to sleep, all communication and battery discharge stops. If the sleep time is set to 5, the panel goes into sleep mode if there is no activity for 5 minutes. The Touch Panel automatically wakes up when you touch the screen for more than .5 seconds.

- **GROUP ID** Sets the group ID number on the Touch Panel to communicate with the wireless AXR-WAVES with the same group ID number. The group ID range is 0–15. The group ID setting overrides the DIP switch setting on the WAV-PK.

- **Wave-Pak Not Locked/Locked** Appears when an optional WAV-PK is connected to the Touch Panel. Not locked indicates the Touch Panel is not communicating with the AXR-WAVES. Locked indicates the Touch Panel is locked on (communicating) to the AXR-WAVES connected to the control system.

- **Battery Voltage XX.X** Shows the voltage level of the lead-acid rechargeable battery in the WAV-PK.

- **Device Range** Shows the device range that your server can recognize. Devices outside that range will not be recognized

- **Server Devices XXX** Shows the group address on the AXR-WAVES communicating with the Touch Panel.

- **Module Version VX.XX** Shows the firmware version installed in the WAV-PK.

- **Fully Charged/Not Charging / Charging** Fully Charged appears when the battery in the WAV-PK is fully charged. Not Charging appears when the lead-acid battery is not charging. Charging appears when the lead-acid battery is charging. The shaded area in the horizontal gauge button moves from left to right as the battery voltage level increases.

- **RSSI XXX%** Shows the strength of the AXR-WAVES signal received by the Touch Panel. The signal strength fluctuates between 50% and 100%.

- **Server Version** Shows the firmware version installed in the AXR-WAVES.

- **Supply Voltage VX.XX** Shows the voltage level of the external power supply (optional) connected to the WAV-PK.

- **Device Eff. XXX%** Shows the strength of the AXR-WAVES signal received by the Touch Panel. The shaded area in the horizontal gauge moves from left-to-right as the RF signal intensity increases. The shaded area fluctuates between 50% and 100%.

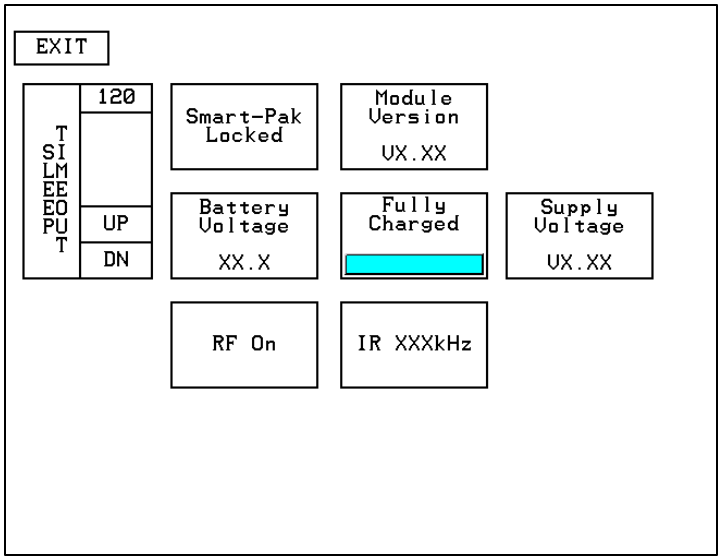
- **Network Eff. XXX%** Shows the communication efficiency of bi-directional RF transmissions between the Touch Panel and AXR-WAVES. The efficiency percentage (0–100%) is determined by the number of retries required to complete a panel operation.

Wireless settings (optional SMT-PK)

The WIRELESS SETTINGS button appears on the SETUP page when a SMT-PK SmartPack is connected to the Min-Touch. Press the WIRELESS SETTINGS button to open the optional page shown in Figure 104.

Figure104

SMT-PK page



Refer to the *SmartPacks for TiltScreen Touch Panels* instruction manual for detailed information.

- **SLEEP TIMEOUT** Press the UP and DN buttons to set the sleep time. The minimum sleep time is 0 (off) and maximum is 120 minutes. When the panel goes to sleep, all communication and battery discharge stops. If the sleep time is set to 5, the panel goes into sleep mode if there is no activity for 5 minutes. The panel wakes up when you touch the screen for more than .5 seconds.

- **Smart-Pk Module Not Locked/Locked** Appears when an optional SMT-PK is connected to the panel. Not locked indicates the panel is not

communicating with the AXR-RF RF Receiver. Locked indicates the panel is locked on to the AXR-RF connected to the control system.

- **Battery Voltage XX.X** Shows the voltage level of the lead-acid rechargeable battery in the SMT-PK.
- **AMX RF ON/OFF** Toggles RF transmission on or off.
- **Module Version VX.XX** Shows the firmware version installed in the SMT-PK.
- **Fully Charged/Not Charging/Charging** Fully Charged appears when the battery in the SMT-PK is fully charged. Not Charging appears when the lead-acid battery is not charging. Charging appears when the lead-acid battery is charging. The shaded area in the horizontal gauge moves from left to right as the battery voltage level increases.
- **AMX IR 38 kHz/455 kHz/OFF** Toggles the IR transmitting frequency to 38 kHz, 455 kHz, or OFF.
- **Supply Voltage VX.XX** Shows the voltage level of the external power supply (optional) connected to the SMT-PK.

Protected Setup Page

The PROTECTED SETUP page allows you to set passwords, mouse controls, and communications parameters. The flowchart in Figure 105 shows how to access the PROTECTED SETUP page, which is password-protected. When you press the PROTECTED SETUP button on the SETUP page, a number keypad appears.

Figure105

PROTECTED SETUP page flowchart

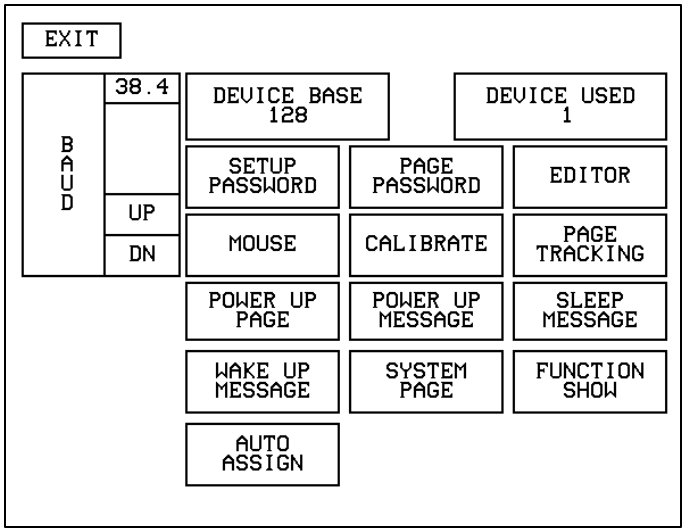
Type `1988`, which is the system default password, and press ENTER to open the PROTECTED SETUP page. (You can change the password, as explained in the *Setup password* subsection.) If you enter a wrong number, press CLEAR and re-enter the number. The PROTECTED SETUP page (Figure 106) appears when you enter the correct number.

Note

When the Edit bar is enabled, you do not have to enter the password when opening the PROTECTED SETUP page.

Figure106

PROTECTED SETUP page

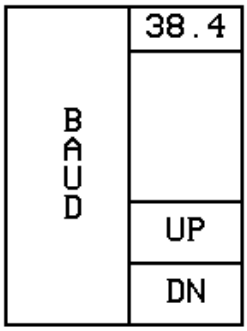


Baud

The BAUD button (Figure 107) sets the baud rate through a factory installed port at the rear of the Touch Panel. The baud rate is automatically set to 1,200 when you activate the MOUSE button. The RS-232 communication automatically defaults to the factory preset baud if you disable the MOUSE ON button.

Figure107

BAUD button



Note

Make sure to match the baud transmission rate for the external RS-232 device.

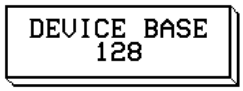
- **BAUD** Press the UP and DN buttons to set the data communication speed through a factory installed port on the Touch Panel. Available baud rates are 300, 600, 1200, 2400, 4800, 9600, 19.2, and 38.4.

Device base

Press the DEVICE BASE button to open the keypad (Figure 108) and set the base address for the Touch Panel. The base address range is 1–255.

Figure108

DEVICE BASE button



Device used

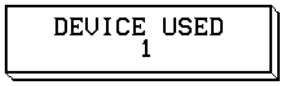
Note

If four devices are used, and the base address is 128, then the touch panel will use device numbers 128, 129, 130, and 131 consecutively.

Press the DEVICE USED button to open the keypad (Figure 109) and set the panel's device number from 1 – 4. Each device number supports up to 255 channel code button assignments. The multiple device setting option allows you to create up to four unique Touch Panel buttons and/or pages.

Figure109

DEVICE USED button



Setup password

Press the SETUP PASSWORD button to open the keypad shown in Figure 110 and set the numeric SETUP page password.

Figure110

SETUP PASSWORD button

Warning

If you change the password number, record the new number and keep it in a secure place. If you change the password, AMX cannot provide you with the password.

The password number range is 1 through 9,999. (Do not use zero.) Do not change the SETUP page password unless you are concerned about unauthorized access to the Touch Panel pages.

- **CLEAR** Press to clear the number in the keypad display.
- **ENTER** Press to enter the new password into Touch Panel memory and close the keypad.

Mouse button

Note

You can still control the Touch Panel with your finger when mouse control is active.

Press the MOUSE button (Figure 111) to open the Mouse Setup page shown in Figure 112.

Figure111

MOUSE button

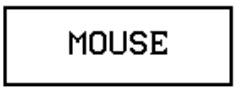
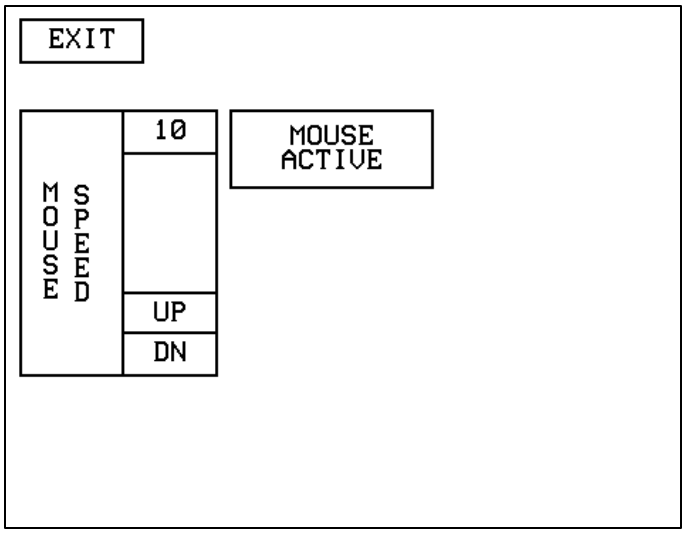


Figure112

MOUSE SETUP page



- **MOUSE SPEED** Press the UP and DN buttons to set the mouse pointer speed. The minimum (slowest) speed is 1 and the maximum (fastest) is 10.

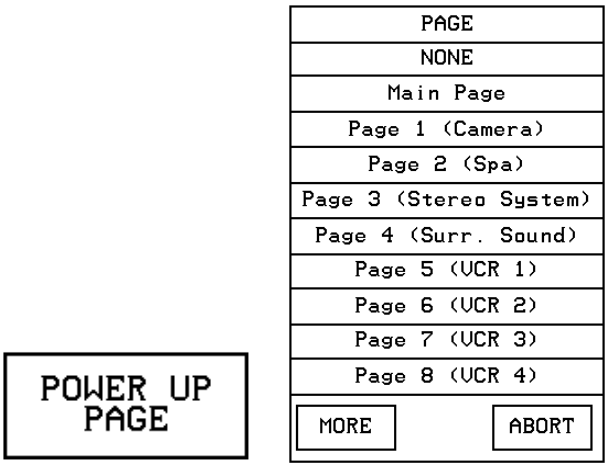
- **MOUSE ACTIVE** Press to activate the mouse pointer. The active mouse pointer appears in the top-left corner of the LCD.

Power up page

Press the POWER UP PAGE button to open the POWER UP page list (Figure 113).

Figure113

POWER UP PAGE button and list



Select a page to designate the first page to appear when you power up the Touch Panel. Select NONE to disable this option. If none is selected, the POWER UP page will be the last active page the next time the touch panel is used.

Wake up message

Press WAKE UP MESSAGE (Figure 114) to open the Touch Panel keyboard, and enter an ASCII string to be sent to the AXCESS Central Controller when the Touch Panel wakes up. You can program the control system to perform specific operations when the message is received. Refer to the *AXCESS Programming* section for detailed programming information.

Figure114

WAKE UP MESSAGE button

Auto assign

Press AUTO ASSIGN (Figure 115) to enable the automatic channel assignment option. This option sets the Touch Panel to prompt you to manually or automatically assign a channel number (1 – 255) to a new button. If you select this option, the Touch Panel assigns the lowest unused channel to the button. Press the AUTO ASSIGN again to disable this option.

Figure115

AUTO ASSIGN button

Page password

Press the PAGE PASSWORD button (Figure 116) to open the keypad and assign a numeric page password to a specific page.

Figure116

PAGE PASSWORD button

If you try to open a password-protected page, the keypad appears, and you must enter the correct password number to open the new page. The page password range is 1 – 9,999.

- **CLEAR** Clears the number in the keypad display.
- **ENTER** Sets the page password number, closes the keypad, and returns to the PROTECTED SETUP page.

Calibrate

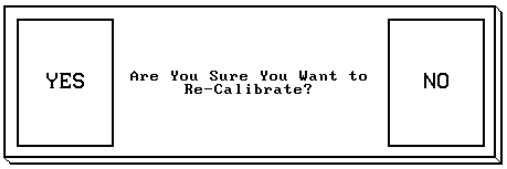
Note

Press and hold for 2 seconds to enter the Test Calibration mode.

Press CALIBRATE to open the decision button shown in Figure 117, and reset the vertical and horizontal touch points on the LCD.

Figure117

CALIBRATE decision button



Note

The crosshair for calibration is first shown at the top-left corner of the Touch Panel screen.

- **YES** Starts the calibration process. Carefully press each crosshair that appears using your finger or dull pointer. When the calibration process is complete, press the screen to return to the PROTECTED SETUP page.
- **NO** Cancels the calibration process.

Power up message

Press POWER UP MESSAGE (Figure 118) to open the keyboard, and enter an ASCII string to be sent to the AXCESS Central Controller when the Touch Panel is powered up. The control system can be programmed to perform specific operations when the message is received. Refer to the *AXCESS Programming* section for detailed programming information.

Figure118

POWER UP MESSAGE button

System page

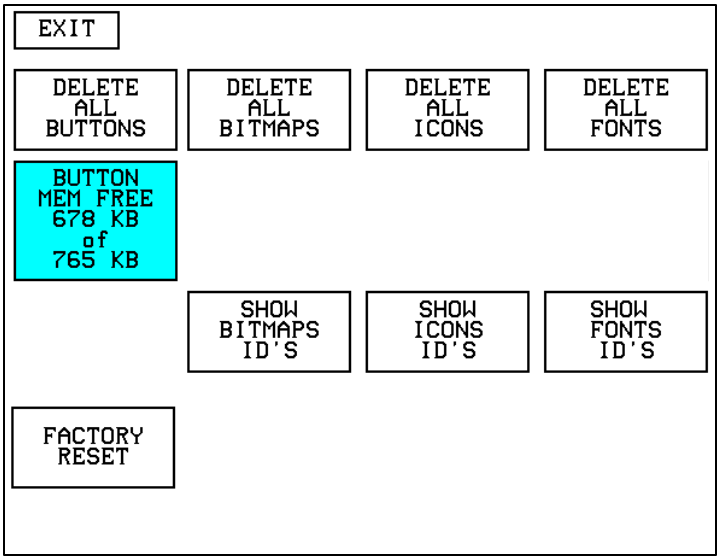
Press the SYSTEM PAGE button (Figure 119) to open the SYSTEM page (Figure 120).

Figure119

SYSTEM PAGE button

Figure120

SYSTEM page



Warning

The System page should only be used to purge unwanted buttons, bitmaps, icons, fonts, and stored Touch Panel settings. Before using this page, make sure you have a backup copy of the Touch Panel program stored in the TPDesign 3 software program. If you press YES on any of the DELETE buttons, the stored data is *permanently* erased from the panel memory.

- **DELETE ALL BUTTONS** Opens the decision button shown in Figure 121. Press YES to clear all Touch Panel buttons or NO to cancel the operation.

Figure121

DELETE ALL BUTTONS decision button

- **BUTTON MEM FREE** Shows the memory available to store buttons in 1,024-byte increments.

- **DELETE ALL BITMAPS** Opens the decision button shown in Figure 122. Press YES to clear all the bitmaps or NO to cancel the operation.

Figure122

DELETE ALL BITMAPS decision button

- **DELETE ALL ICONS** Opens the decision button shown in Figure 123. Press YES to clear all the icons or NO to cancel the operation.

Figure123

DELETE ALL ICONS decision button

- **DELETE ALL FONTS** Opens the decision button shown in Figure 124. Press YES to clear all the fonts or NO to cancel the operation.

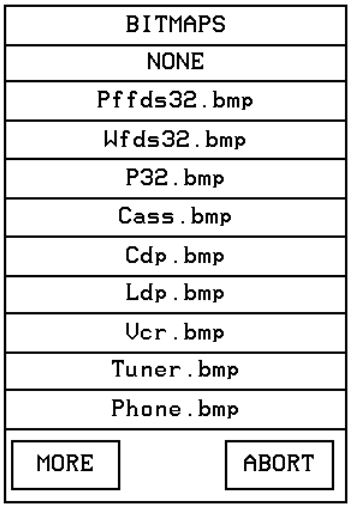
Figure124

DELETE ALL FONTS decision button

- **SHOW BITMAPS ID'S** Opens the BITMAPS menu (Figure 125) which shows you a listing of the available bitmaps.

Figure125

BITMAPS menu



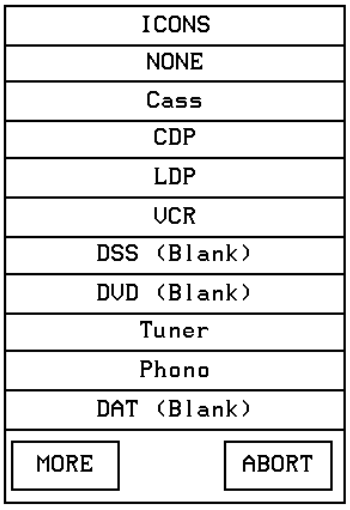
- **SHOW ICONS ID'S** Opens the ICONS menu (Figure 126) which shows you a listing of the available icons.

  — MORE Forwards the menu listing by providing further options.

  — ABORT Cancels the menu process and returns to the current page.

Figure126

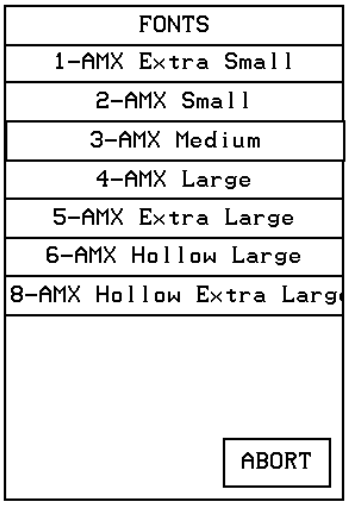
ICONS menu



- **SHOW FONTS ID'S** Opens the FONTS menu (Figure 127) which shows you a listing of the available fonts.

Figure127

FONTS menu



Note

You can use the TPDesign 3 software program to import variable fonts into the panel. Custom fonts include Arial 12 and Bodini 18.

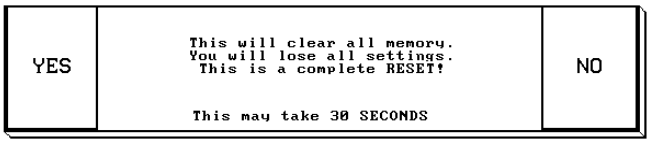
Warning

You should only use the FACTORY RESET button to erase all stored data in the Touch Panel. The data cannot be recovered after it is erased.

- **FACTORY RESET** Opens the decision button shown in Figure 128. Press YES to clear *all* Touch Panel memory or NO to cancel the operation.

Figure128

CLEAR MEMORY decision button



Editor

Press EDITOR (Figure 129) in PROTECTED SETUP page to activate the EDIT button. The PROTECTED SETUP page remains open until you press EXIT

Figure129

EDITOR button

When you exit the PROTECTED SETUP page, the EDIT button (Figure 130) appears on the top or bottom of the LCD. You can press the EDIT button to open

the Edit bar (Figure 131) and create buttons, pages, popup pages, and set a wide variety of Touch Panel settings. The active Touch Panel page name also appears in the active Edit bar. For example, the Edit bar sample in Figure 131 shows the current page name is MAIN PAGE. Because there are so many operations associated with the EDIT button, they are described in the *Edit button* subsection.

Figure130

EDIT button

Figure131

Edit bar

Page tracking

Press PAGE TRACKING (Figure 132) to toggle the page tracking option ON or OFF. When page tracking is enabled, the Touch Panel sends page data back to the control system depending on how you set the Touch Panel. Page tracking data can be used to control pages in multiple Touch Panels.

Figure132

PAGE TRACKING button

Sleep message

Press SLEEP MESSAGE (Figure 133) to open the Touch Panel keyboard and enter a message that will appear on-screen when the Touch Panel goes into sleep-saver mode. Refer to *LCD timer* to set the Touch Panel's screen-saver mode.

Figure133

SLEEP MESSAGE button

Function show

Press FUNCTION SHOW (Figure 134) to display channel code numbers and variable text code numbers on Touch Panel buttons, joysticks, sliders, and bargraphs. As shown in Figure 135, a channel code number appears in the upper-left corner of the button, and a variable text number appears in the lower-right corner.

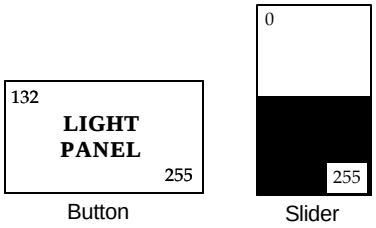
Figure134

FUNCTION SHOW button

1. Press EXIT twice to return to the MAIN page. If nothing appears in the button, it does not have a channel code or variable text code assignment.
2. Press FUNCTION SHOW again to disable the channel code and variable text code numbers.

Figure135

Function show button and slider example

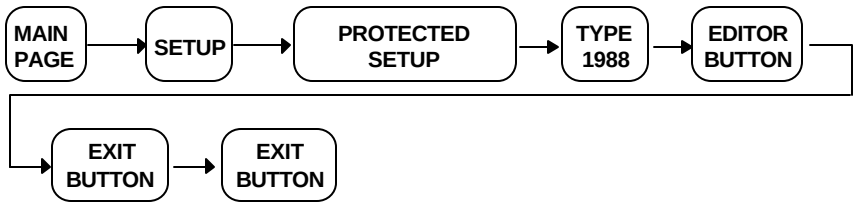


Edit button

Press `EDITOR` in the Protected Setup page to enable the Edit button. The Protected Setup page remains open until you press `EXIT`. Then, the Edit button appears on every page. The flowchart in Figure 136 shows the sequence to activate the Edit button.

Figure136

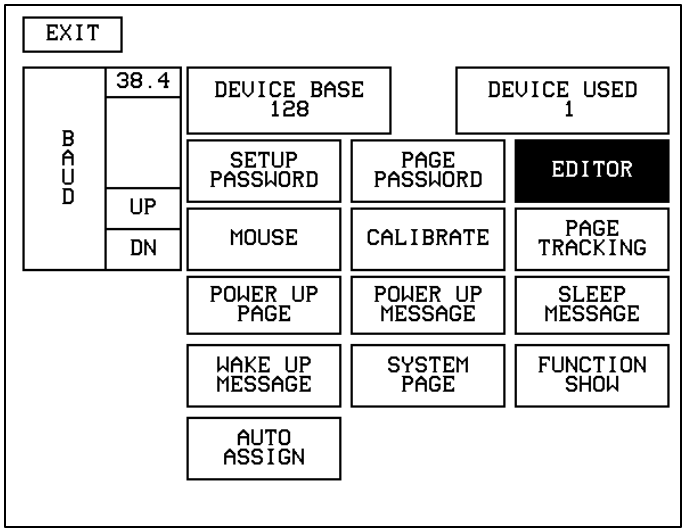
Edit button activation flowchart



Press EXIT in the PROTECTED SETUP page (Figure 137) to return to the MAIN page.

Figure137

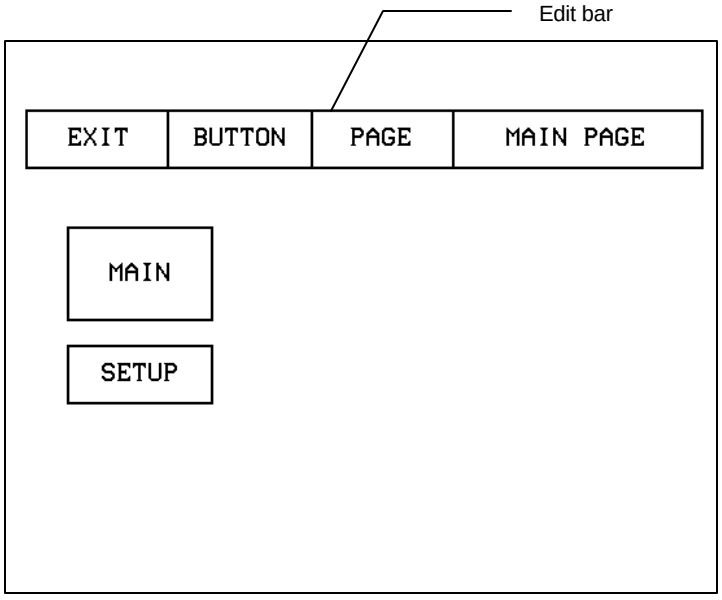
Enabled EDITOR button in the PROTECTED SETUP page



Press EDITOR to activate the Edit bar shown in Figure 138. When the Edit bar is enabled, it appears on the top or bottom of each Touch Panel page.

Figure138

Edit bar

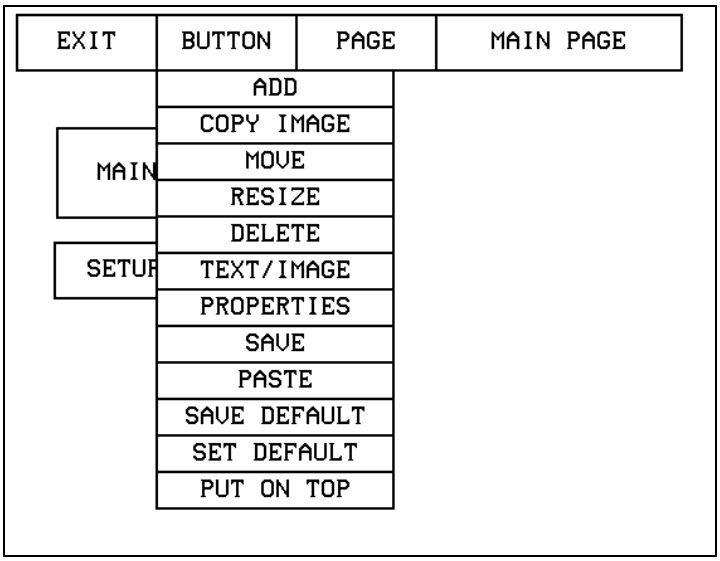


Edit Bar — Button Menu Options

Press EDIT and BUTTON to open the menu shown in Figure 139.

Figure139

Edit Bar — BUTTON menu options



Note

Buttons with Unicode Fonts can only be created and edited within TPDesign 3 then imported to the Touch Panel.

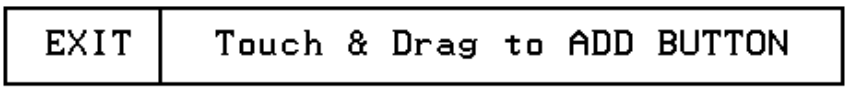
You can use the BUTTON menu to create, configure, and revise Touch Panel button settings. The Touch Panel can however use the other BUTTON menu features on them. The Edit bar also shows the current page name. The Edit bar also shows the current page name. The Edit bar in Figure 139 shows MAIN PAGE is the current page.

Add

Press ADD to add a button when the ADD BUTTON message (Figure 140) appears on the LCD. The first touch point is the upper-left corner of the button.

Figure140

ADD BUTTON message



Drag your finger horizontally across the screen and down to set the height and width of the button. When the new button appears on the page, the message bar shows you the X/Y page-position coordinates and the X/Y resolution size.

Note

You can adjust the button position with the MOVE and RESIZE options.

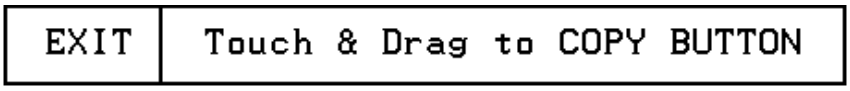
Press the EXIT button in the Edit bar to exit. Use the PROPERTIES option to set the button color, border style, and configuration settings.

Copy image

Press COPY IMAGE to copy a button when the COPY BUTTON message (Figure 141) appears on the LCD.

Figure141

COPY BUTTON message



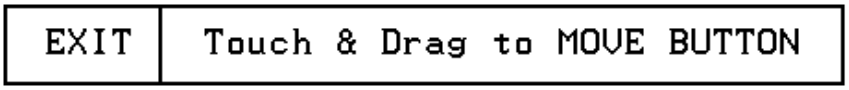
Touch the target button and drag the new button to another position. When you start dragging the new button, the message bar shows you the current X/Y page-position coordinates, and the X/Y resolution size. Press EXIT on the Edit bar to exit.

Move

Press MOVE to move a button when the MOVE BUTTON message (Figure 142) appears on the LCD. Then, drag the button to the new position. When you start moving the button, the message bar shows you the current X/Y page-position coordinates and the X/Y resolution size. Press EXIT in the message bar to exit.

Figure142

MOVE BUTTON message

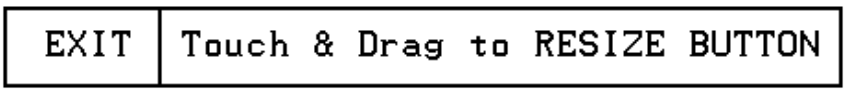


Resize

Press RESIZE to resize a button when the RESIZE BUTTON message (Figure 143) appears on the LCD.

Figure143

RESIZE BUTTON message



Drag your finger horizontally across the screen and down to resize the height and width of the button.

Press EXIT in the message bar to exit. When you resize the button, the message bar shows you the current X/Y page-position coordinates, and the X/Y resolution size. If you add text to a button, the button size must be large enough to accommodate the text string.

Delete

Press DELETE to delete a button when the DELETE BUTTON message (Figure 144) appears on the LCD.

Figure144

DELETE BUTTON message

Then, choose the button you want to delete to open the decision box shown in Figure 145.

Figure145

DELETE button decision box

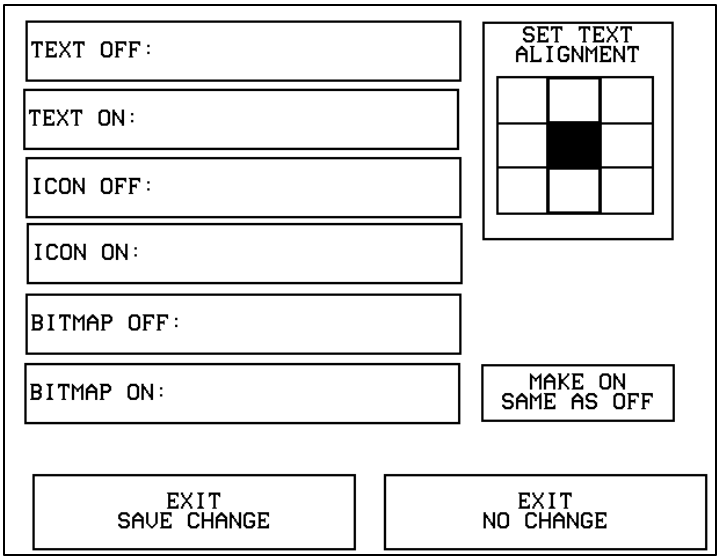
- **YES** Deletes the button and returns to the current page.
- **NO** Cancels the deletion process and returns to the current page.

Text/Image

Press TEXT/IMAGE and a button to open the TEXT/IMAGE page shown in Figure 146. This option allows you to set the text, icons, and bitmap files for the current button.

Figure146

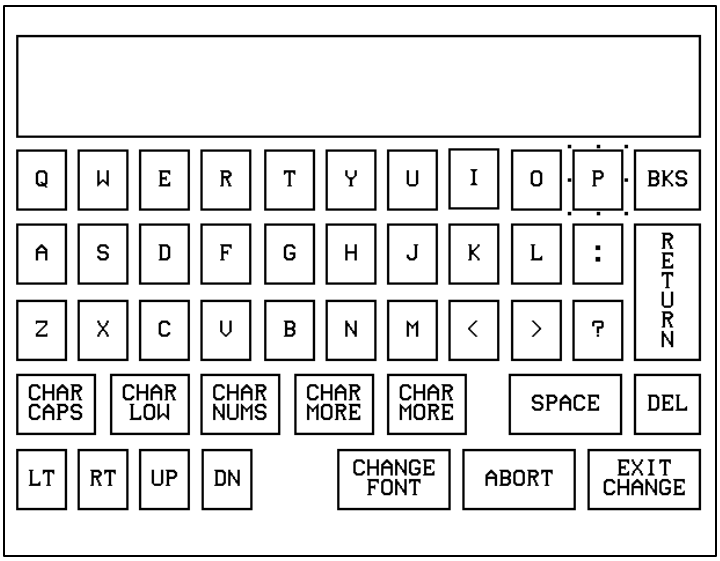
TEXT/IMAGE page



- **TEXT OFF** Opens the keyboard (Figure 147) where you enter the text to appear on the OFF-state button.

Figure147

Keyboard



The text appears in the window at the top of the keyboard. If the text string exceeds the space in the button, the Touch Panel generates an error message. Change the size of the button or reduce the font size to clear the error message.

— CHAR CAPS Sets the keyboard to uppercase characters.

— CHAR LOW Sets the keyboard to lowercase characters.

— CHAR NUMS Sets the keyboard to numeric characters.

— CHAR MORE Toggles the keypad to special characters.

— SPACE Enters a blank space.

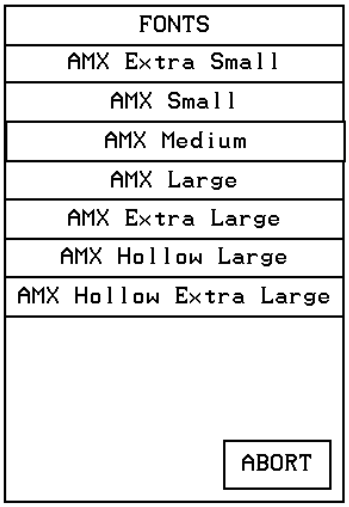
— DEL Deletes a space or character where the flashing cursor appears.

— LT, RT, UP, DN Moves the flashing cursor position left, right, up, and down.

— CHANGE FONT Opens the FONTS menu (Figure 148) where you select the text font (typeface) for the button.

Figure148

FONTS menu



Note

You can use the TPDesign 3 software program to import variable fonts into the panel. Custom fonts are Arial 12 and Bodini 18.

— ABORT Closes the FONTS menu and returns to the Text/Image page.

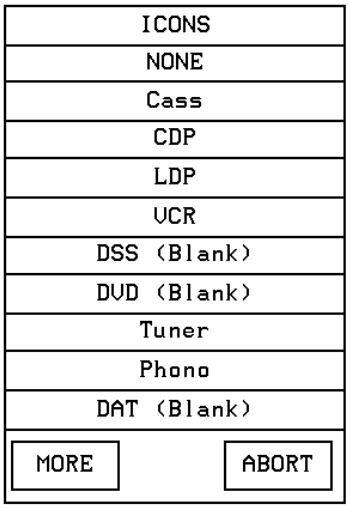
— EXIT CHANGE Saves current settings, closes the keyboard, and returns to the TEXT/IMAGE page.

- **TEXT ON** Opens the keyboard (Figure 147) where you enter the text to appear on the ON-state button.

- **ICON OFF** Opens the ICONS menu (Figure 149) where you select an icon to appear on the Off-state button. Select MORE to view more icons or ABORT to exit and return to the TEXT/IMAGE page.

Figure149

ICONS menu



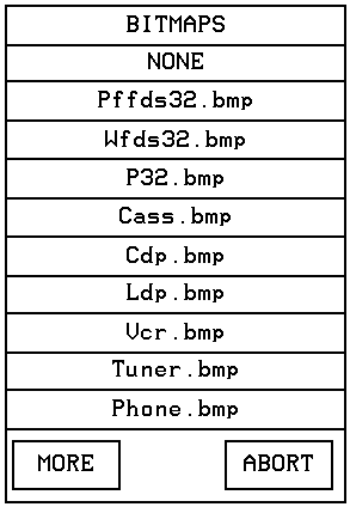
- **ICON ON** Opens the ICONS menu (Figure 149) where you select the icon to appear on the On-state button. Select MORE to view more icon files, and the ABORT button to exit and return to the TEXT/IMAGE page.

- **BITMAP OFF** Opens the BITMAPS menu (Figure 150) where you select the bitmap to appear on the Off-state button. Select MORE to view more icon files, and the ABORT button to exit and return to the TEXT/IMAGE page.

- **BITMAP ON** Opens the BITMAPS menu (Figure 150) where you select the bitmap to appear on the On-state button. Select MORE to view more icon files, and the ABORT button to exit and return to the TEXT/IMAGE page.

Figure150

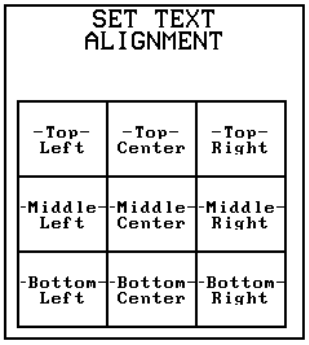
Bitmaps menu



- **SET TEXT ALIGNMENT** Sets the text alignment on the button. Figure 151 shows the alignment option textually for each button. The text references do not appear on the actual SET TEXT ALIGNMENT buttons.

Figure151

SET TEXT ALIGNMENT options



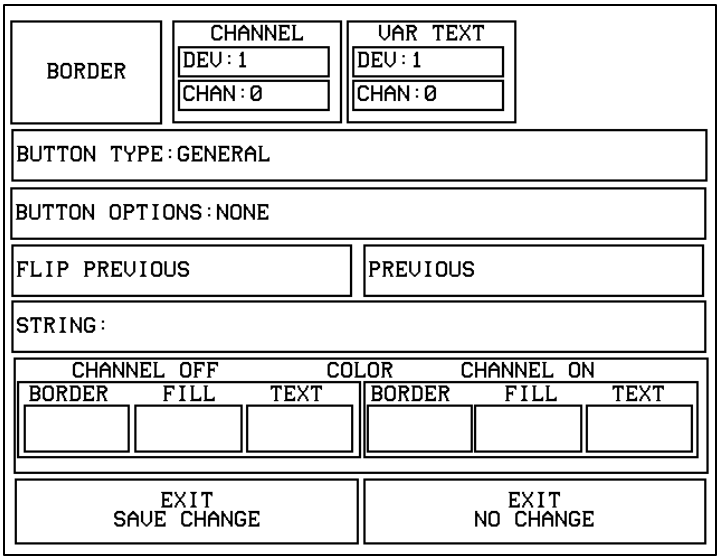
- **MAKE ON SAME AS OFF** Copies the OFF-state text, icon, and/or bitmap settings to the ON-state buttons.
- **EXIT SAVE CHANGE** Saves the current settings, exits the TEXT/IMAGE page, and returns to the current page.
- **EXIT NO CHANGE** Cancels the current settings and returns to the current page.

Properties

Select PROPERTIES and a button to open the PROPERTIES page (Figure 152). Then, you can set the border style, channel/variable text device and channel numbers, button type, button options, flip type, string, and channel OFF/ON state attributes.

Figure152

PROPERTIES page



- **BORDER** Opens the BUTTON BORDER menu (Figure 153) where you select the border style. Figure 154 shows the border names and styles.

Figure153

Border menu

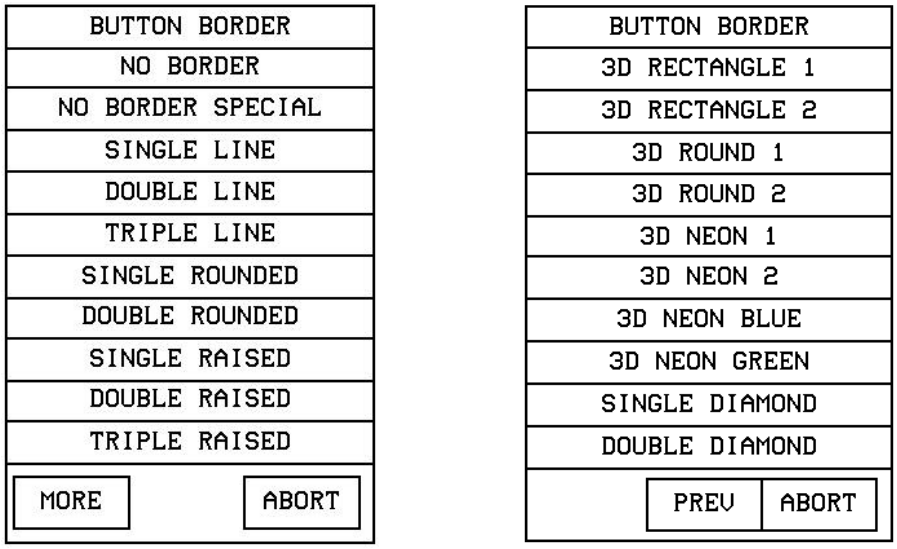
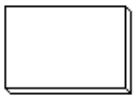
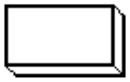
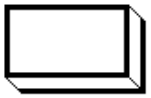
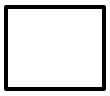
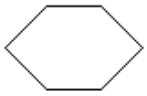
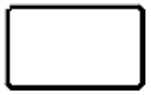
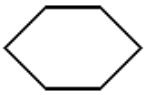
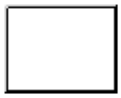


Figure154

Border name and style

Border names and styles

Name	Style	Name	Style
No border		Single raised	
No border special		Double raised	
Single line		Triple raised	
Double line		Double line 2	
Triple line		Double line 3	
Single rounded		3D neon blue	
Double rounded		3D neon green	
Single diamond		3D round 1	
Double diamond		3D round 2	
Double shadow		3D neon 1	
3D rectangle 1		3D neon 2	
3D rectangle 2			

- **CHANNEL DEV:** Opens the keypad where you set the device number for the current button or Touch Panel page. The device range is 1–4.

- **CHANNEL CHAN:** Opens the keypad where you set the channel code for the current button. The channel code range is 1–255. Record the channel code settings if you want to create duplicate buttons and functions on another page. If the AUTO ASSIGN option is enabled in the PROTECTED SETUP page, the Touch Panel prompts you to automatically or manually assign the channel code. Select YES to allow the Touch Panel to assign the lowest available channel number.

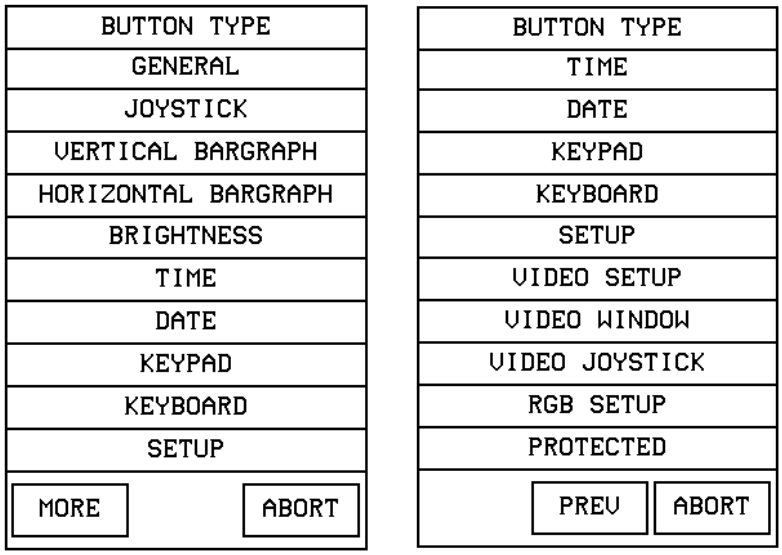
- **VAR TEXT DEV** Opens the keypad where you set the device number for the current button and Touch Panel page. The device range is 1–4.

- **VAR TEXT CHAN:** Opens the keypad where you set the variable text channel code for the current button. The channel code range is 1–255. Record the channel code settings if you want to create duplicate buttons and their functions on another page. If the AUTO ASSIGN option is enabled in the PROTECTED SETUP page, the Touch Panel prompts you to automatically or manually assign the channel code. Select YES to allow the Touch Panel to automatically assign the lowest available channel number.

- **BUTTON TYPE** Opens the BUTTON TYPE menu (Figure 155) where you select the button type. After you select a button type, the PROPERTIES page resets with specific options according to that button type. For example, if you select the button type GENERAL, the BUTTON OPTIONS, FLIP, and STRING options appear in the PROPERTIES page.

Figure155

BUTTON TYPE menu



— GENERAL Sets the button to automatically send a message to the AXCESS Central Controller via the AXlink connector, PC via the factory installed port connector, or with WAVE wireless communication. Refer to *Properties Page— Button Type: General* in this section for more information.

— JOYSTICK Sets the button to a joystick that includes a control stick. When you move the control stick, the Touch Panel sends feedback (data) to the control system and to the external device to perform a pre-programmed operation. Refer to *Properties Page— Button Type: Joystick* in this section for more information.

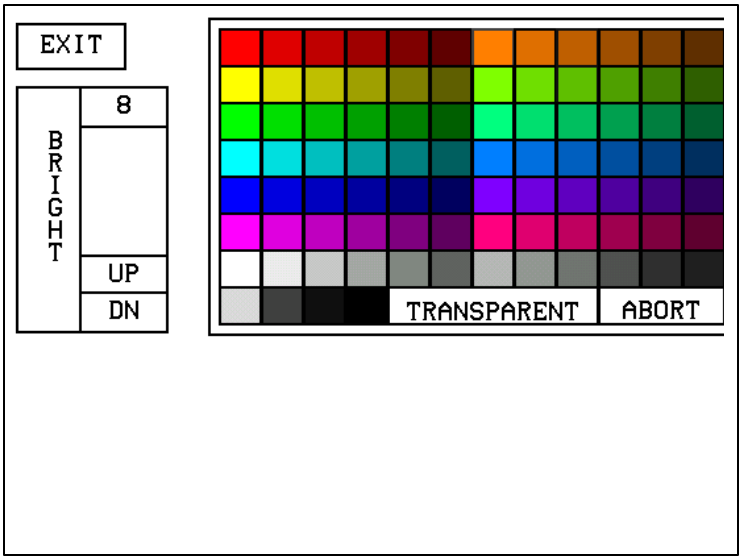
— VERTICAL BARGRAPH Sets the button to a vertical bargraph or slider. Feedback for bargraph or slider response comes from the control system. Refer to *Properties Page— Button Type: Vertical Bargraph* in this section for detailed information.

— HORIZONTAL BARGRAPH Sets the button to a horizontal bargraph or slider. Feedback for bargraph or slider response comes from the control system. Refer to *Properties Page— Button Type: Horizontal Bargraph* in this section for detailed information.

— BRIGHTNESS Sets the button to open the Brightness page shown in Figure 156. The Brightness page allows you to set the Touch Panel's LCD light level. The minimum brightness setting is 1 and the maximum is 8.

Figure156

BRIGHTNESS page

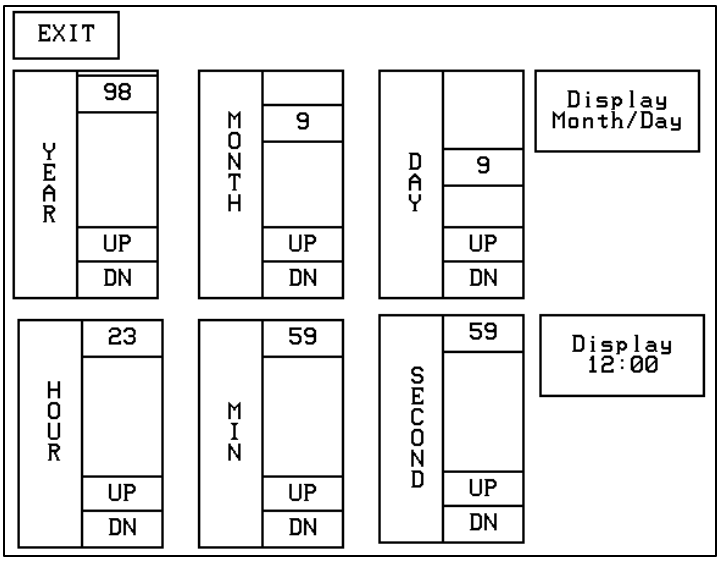


— TIME Sets the button to open the TIME/DATE page shown in Figure 157. Refer to *Set time and date* described in this section for more information.

— DATE Sets the button to open the TIME/DATE page shown in Figure 157. Refer to *Set time and date* described in this section for more information.

Figure157

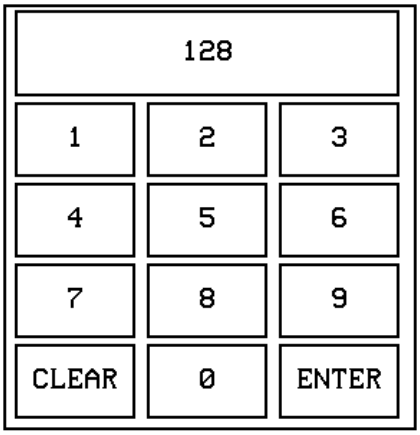
TIME/DATE page



— KEYPAD Sets the button to open the keypad (Figure 158) so you can enter a password or value assignment. All the keypad buttons are interactive except for the entry display.

Figure158

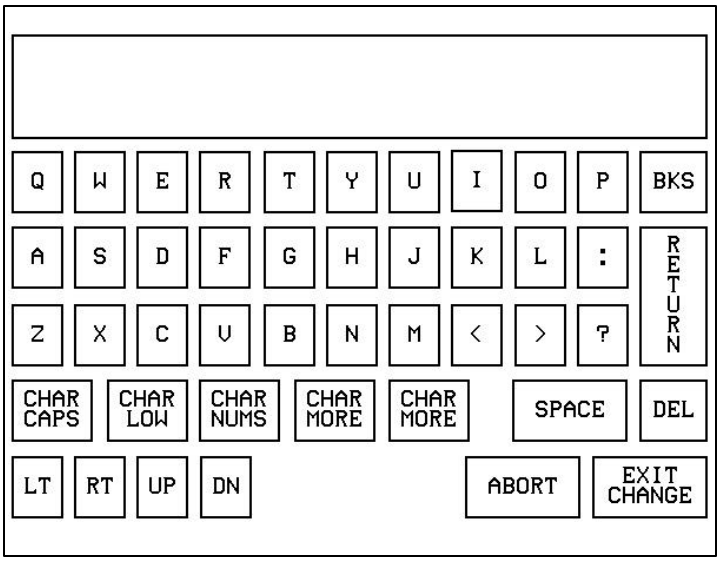
Keypad



— KEYBOARD Sets the button to open the keyboard so you can enter a name or string. All the keyboard buttons are interactive except for the message box as seen in Figure 160.

Figure159

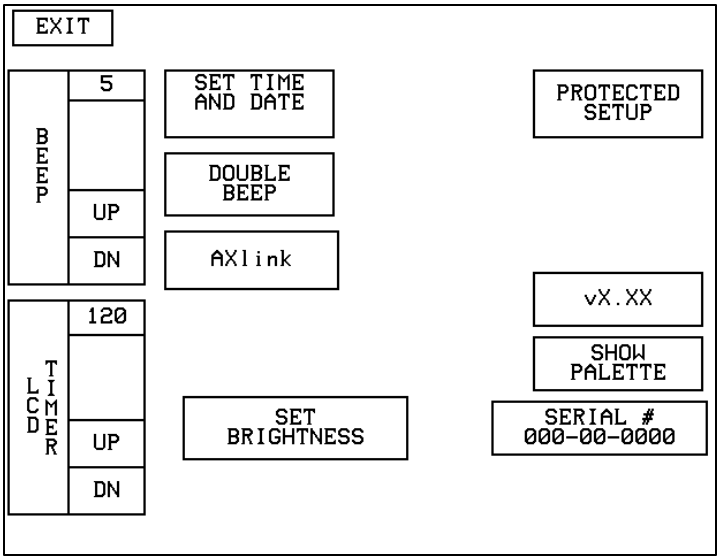
Keyboard



— SETUP Sets the button to open the SETUP page shown in Figure 160. Refer to *Setup Page* in this section for more information.

Figure160

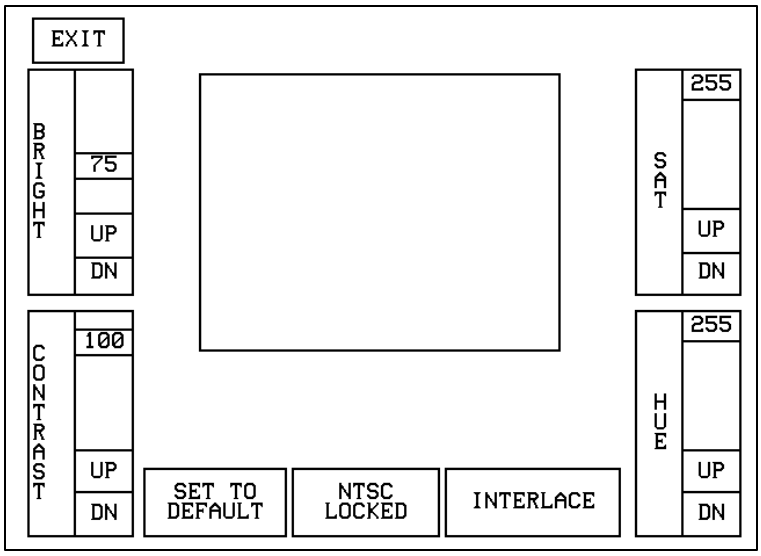
SETUP page



— VIDEO SETUP Sets the button to open the VIDEO SETUP page (Figure 161) so you can set the incoming video display on the Touch Panel.

Figure161

VIDEO SETUP page



BRIGHT Press UP or DN to increase or decrease the brightness level of the LCD. The brightness range is 0–255. You can also press SET TO DEFAULT to automatically set the bright level to 75 (factory setting).

CONTRAST Press the UP button to increase or DN button to decrease the contrast of the LCD. The contrast range is 0–255. Press SET TO DEFAULT to automatically set the contrast level to 100 (factory setting).

SET TO DEFAULT Resets the VIDEO SETUP page to factory default settings.

Note

PAL LOCKED disables the SAT, HUE, and INTERLACE / NON-INTERLACE features.

NTSC LOCKED / PAL LOCKED Shows which type of composite video (NTSC or PAL) is being supplied to the panel. The Touch Panel automatically detects, locks in on the signal type, and displays the video type in the button.

Note

The Color Video Touch Panel does not support non-interlaced video sources, this applies to both NTSC and PAL video formats.

INTERLACE / NON-INTERLACE Sets the Touch Panel to display the composite video signal in an interlaced or non-interlaced display format. Interlaced video refreshes the entire video display at specific time intervals. Non-interlaced video refreshes every other line of the video display at specific time intervals.

SAT Sets the color concentration (density) on the Touch Panel LCD. This button does not appear on the VIDEO SETUP page if the incoming video signal is PAL format.

HUE Sets the color gradation on the panel LCD. This button does not appear on the VIDEO SETUP page if the incoming video signal is PAL format.

— VIDEO WINDOW Sets the button to a video window to display the incoming video signal.

— VIDEO JOYSTICK Sets the button to a video joystick that displays the incoming video signal, and a control stick. When you move the control stick, the Touch Panel sends feedback (data) to the control system and to the external device to perform a pre-programmed operation.

Note

This feature is not available in the Touch Panel.

— RGB SETUP Sets the button to open the RGB SETUP page so you can adjust the incoming video signal on the Touch Panel.

— PROTECTED Sets the button to open the Protected Setup page. Refer to *Protected Setup Page* in this section for more information.

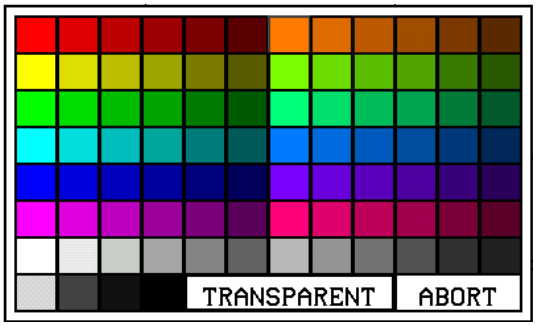
Note

For information on Page Properties such as: Button, Flip pages, and String options, refer to the *Properties Page* sections.

- **CHANNEL OFF and CHANNEL ON**Sets the border, fill, and text colors for the button's Off and On states. Press the BORDER, FILL, and TEXT buttons to open the color palette shown in Figure 162. Then, select a color to set the channel colors and return to the PROPERTIES page. The new color appears on the associated button attribute on the PROPERTIES page.

Figure162

Color palette



— TRANSPARENT Sets the button to appear transparent on the Touch Panel page.

— ABORT Closes the color palette and returns to the PROPERTIES page.

- **EXIT SAVE CHANGE** Closes the PROPERTIES page, saves the new settings, and returns to the current Touch Panel page.

- **EXIT NO CHANGE** Closes the PROPERTIES page, ignores the new settings, and returns to the current Touch Panel page.

Save

Press SAVE and a button to copy the button attributes into memory. You can paste the button in the current page or on another page.

Paste

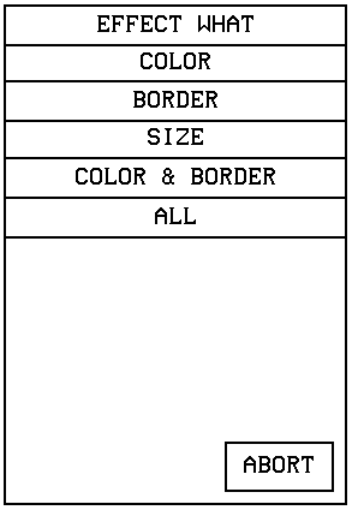
Press PASTE and the LCD to paste the button saved in memory with the Save option.

Save default

Press SAVE DEFAULT to open the EFFECT WHAT menu shown in Figure 163. Then, select a default option to store in Touch Panel memory. The stored default settings are automatically used for all new buttons, and can be applied to existing buttons using the SET DEFAULT option.

Figure163

EFFECT WHAT menu



— COLOR Select this option and a button to store the default color in Touch Panel memory. The default color is automatically applied to all new buttons.

— BORDER Select this option and a button to store the default border in Touch Panel memory. The default border is automatically applied to all new buttons.

— SIZE Select this option and a button to store the button size in Touch Panel memory. Then, use the SET DEFAULT option to automatically resize a button to the default size.

— COLOR & BORDER Select this option and a button to store the default color and border in Touch Panel memory. The default color and border is automatically applied to all new buttons.

— ALL Select this option and a button to store the default color, border, and size in Touch Panel memory. These default settings are automatically applied to all new buttons.

Set default

Press the SET DEFAULTS option and a button to automatically reset the button's color, border, and size according to the default settings stored in Touch Panel memory. You can use the SAVE DEFAULTS option to store new default settings in Touch Panel memory.

Put on top

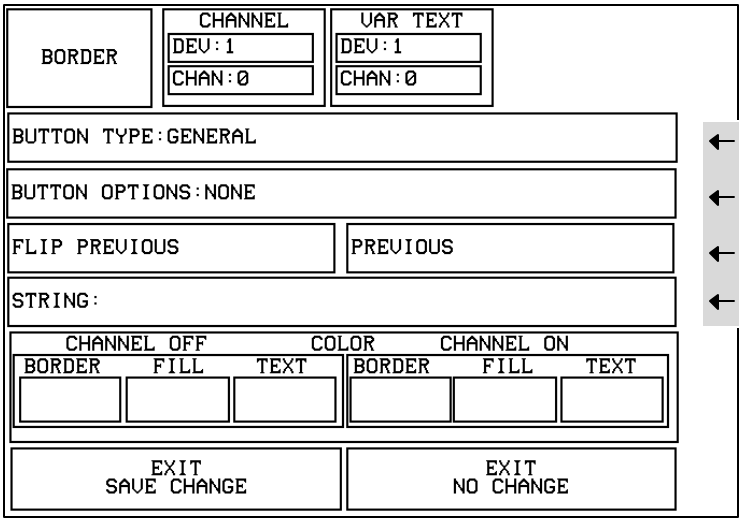
Press PUT ON TOP and a button to move the button in front of another button on the current panel page. This option is useful when constructing multi-layered buttons.

Properties Page — Button Type: General

Sets the button to automatically send a message to the AXCESS Central Controller via the AXlink connector, to the PC via the RS-232 connector, or wireless receiver. The button type General and associated options appear in the PROPERTIES page as shown in Figure 164.

Figure164

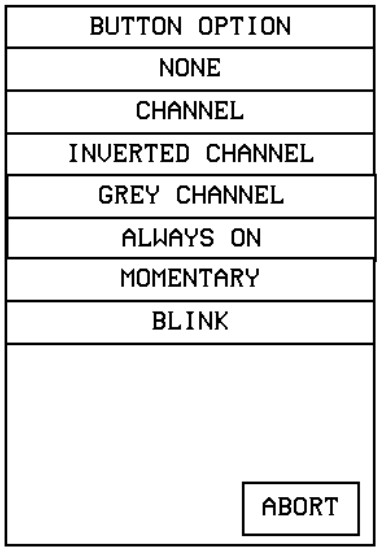
BUTTON TYPE: GENERAL options



- **BUTTON OPTIONS** Opens the BUTTON OPTION menu (Figure 165) where you set the button type. Press ABORT to close the menu.

Figure165

BUTTON OPTION - General menu



— NONE Sets the button feedback off. This option also sets the button border, fill, and text colors to match the CHANNEL OFF color options in the PROPERTIES page.

— CHANNEL Sets the button border, fill, and text colors to match the CHANNEL ON color options in the ATTRIBUTES page when the assigned button function is on.

— INVERTED CHANNEL Sets the button border, fill, and text colors to match the CHANNEL ON color options in the PROPERTIES page when the assigned button function is off.

— GREY CHANNEL Sets button feedback color to grey.

— ALWAYS ON Sets the button feedback on. This option also sets the button border, fill, and text colors to match the CHANNEL ON color options in the PROPERTIES page.

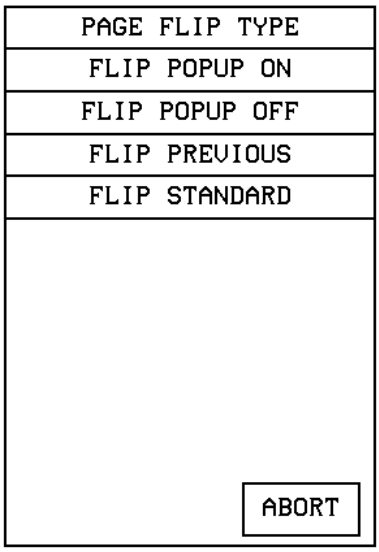
— MOMENTARY Sets the button border, fill, and text colors to match the CHANNEL ON color options in the PROPERTIES page when you touch the button regardless of the assigned function.

— BLINK Sets the button to toggle between on and off states.

- **FLIP <FLIP TYPE>** Opens the PAGE FLIP TYPE menu (Figure 166) where you set the page flip action for the button. Press ABORT to close the menu.

Figure166

FLIP <FLIP TYPE> menu



Note

You must use the TPDesign 3 program to create and download popup pages to the Touch Panel.

— FLIP POPUP ON Sets the button action to open a popup page. Select the FLIP menu button (Figure 167) to open the POPUP PAGE menu (Figure 168), and select a popup page.

Figure167

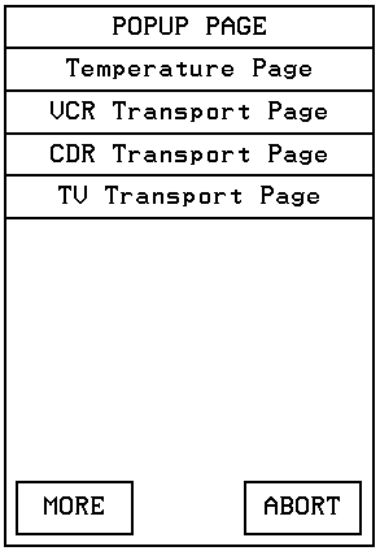
FLIP menu button

— FLIP POPUP OFF Sets the button action to close a popup page. Select the Flip menu button (Figure 167) to open the POPUP PAGE menu (Figure 168), and select a popup page to close.

— FLIP PREVIOUS Sets the button action to open the previous Touch Panel page on the panel.

Figure168

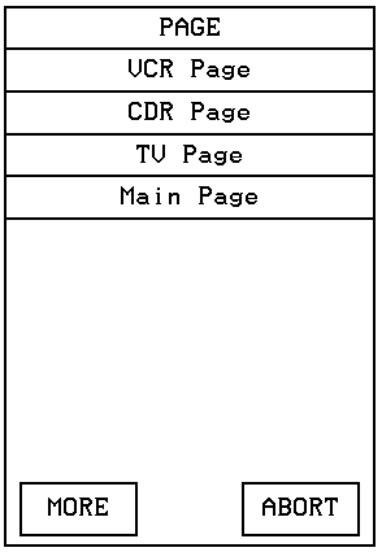
POPUP PAGE menu



— FLIP STANDARD Sets the button action to open a Touch Panel page. Use the FLIP menu button to open the PAGE menu (Figure 169), and select the target Touch Panel page.

Figure169

PAGE menu



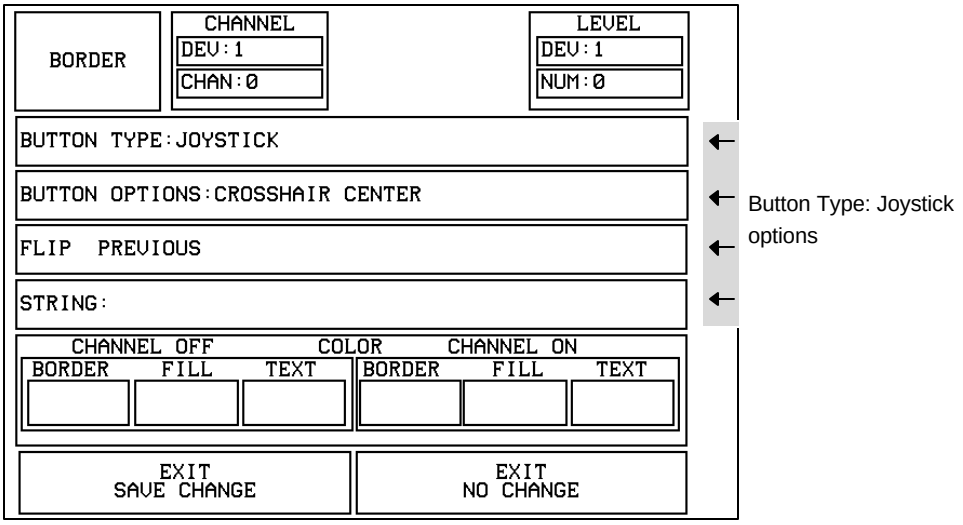
- **STRING** Opens the keyboard where you enter the data string to be sent to the control system via AXlink or RF communications. The data string appears in the STRING button. Press ABORT to close the menu.

Properties Page — Button Type: Joystick

Sets the button type to a joystick. The button type Joystick and associated options appear in the PROPERTIES page as shown in Figure 170.

Figure170

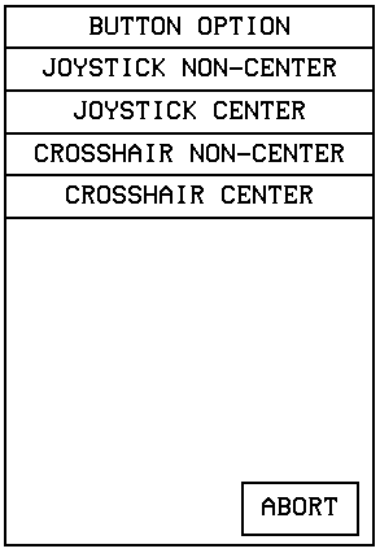
BUTTON TYPE: JOYSTICK options



- **BUTTON OPTIONS** Opens the BUTTON OPTION menu (Figure 171) where you set the button type. Press ABORT to close the menu.

Figure171

BUTTON OPTION menu



—JOYSTICK NON-CENTERSets the button to a four-quadrant joystick with a control stick. When you move the control stick, the Touch Panel sends feedback (data) to the control system and to the external device to perform a pre-programmed operation. When you remove your finger from the screen, the control stick and external device stay in that position.

—JOYSTICK CENTER Sets the button to a four-quadrant joystick with a control stick located in the center. When you move the control stick, the Touch Panel sends feedback (data) to the control system and to the external device to perform a pre-programmed operation. When you remove your finger from the screen, the control stick returns to the center of the icon and the external device returns to its default position.

—CROSSHAIR NON-CENTERSets the button to a four-quadrant crosshair with a control stick located in the center. When you move the control stick, the Touch Panel sends feedback (data) to the control system and to the external device to perform a pre-programmed operation. When you remove your finger from the screen, the control stick returns to the center of the icon and the external device returns to its default position.

—CROSSHAIR CENTER Sets the button to a four-quadrant crosshair with a control stick. When you move the control stick, the Touch Panel sends feedback (data) to the control system and to the external device to perform

a pre-programmed operation. When you remove your finger from the screen, the control stick and external device stay in that position.

- **FLIP < FLIP TYPE>** Opens the PAGE FLIP TYPE menu (Figure 172) where you set the page flip action for the button. Press ABORT to close the menu.

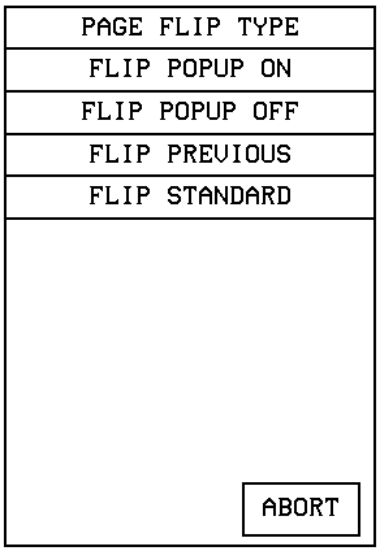
  —FLIP POPUP ON Sets the button action to open a popup page. Select the Flip menu button (Figure 173) to open the POPUP PAGE menu (Figure 168), and select a popup page.

Note

You must use the TPDesign 3 program to create and download popup pages to the Touch Panel.

Figure172

PAGE FLIP TYPE menu



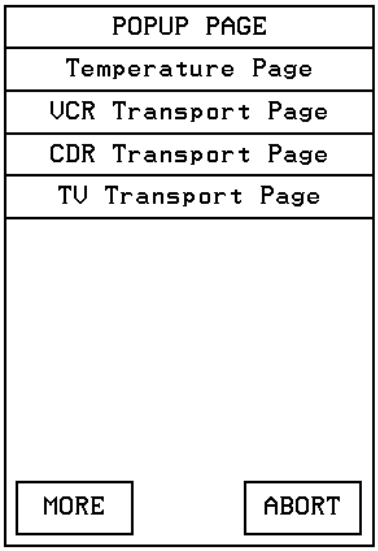
- **ABORT** Cancels the PAGE FLIP TYPE process assignment and returns to the current page.

Figure173

FLIP menu button

Figure174

POPUP PAGE menu



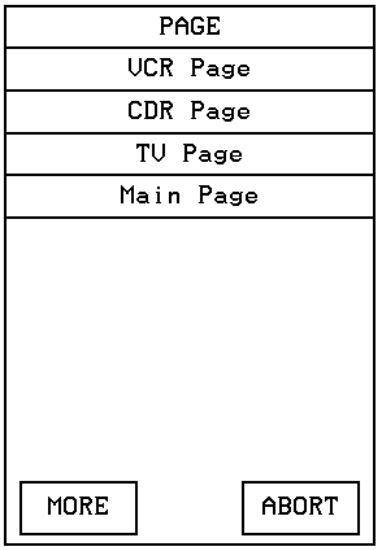
—FLIP POPUP OFF Sets the button action to close a popup page. Select the FLIP menu button (Figure 172) to open the POPUP PAGE menu (Figure 173), and select a popup page to close.

—FLIP PREVIOUS Sets the button action to open the previous Touch Panel page on the Touch Panel.

—FLIP STANDARD Sets the button action to open a Touch Panel page. Use the FLIP menu button to open the PAGE menu (Figure 175), and select the target panel page.

Figure175

PAGE menu



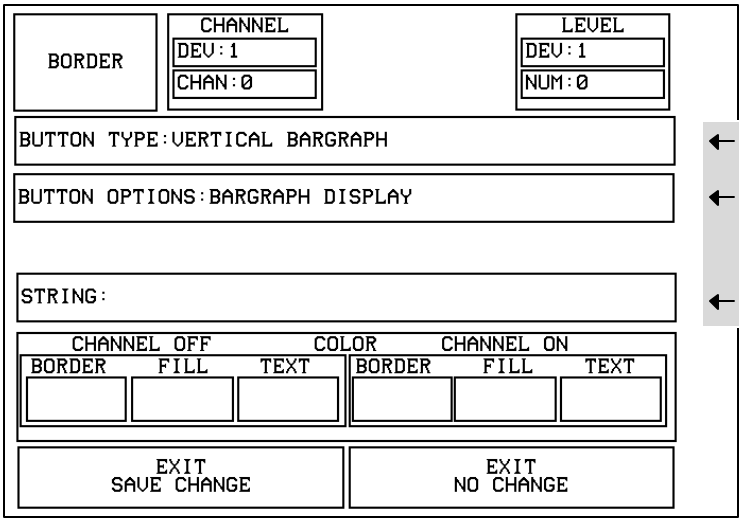
- **STRING** Opens the keyboard where you enter the data string to be sent to the control system via AXlink or RF communications. The data string appears in the STRING button. Press ABORT to close the menu.

Properties Page — Button Type: Vertical Bargraph

Sets the button type to a vertical bargraph. The BUTTON TYPE VERTICAL BARGRAPH and associated options appear in the PROPERTIES page as shown in Figure 180.

Figure176

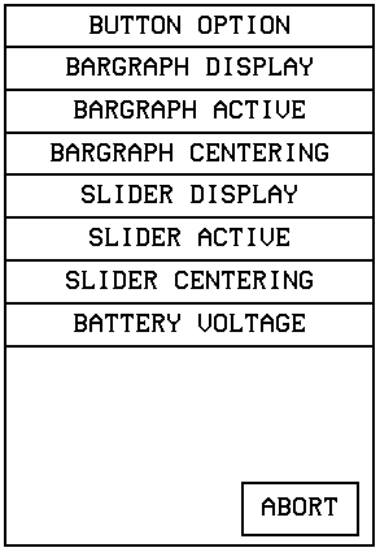
BUTTON TYPE: VERTICAL BARGRAPH options



- **BUTTON OPTIONS** Opens the BUTTON OPTION menu (Figure 171) where you set the button type. Press ABORT to close the menu.

Figure177

BUTTON OPTION menu



— BARGRAPH DISPLAY Sets the bargraph as a vertical indicator for external devices. Indicator levels are defined in the AXCESS software program.

— BARGRAPH ACTIVE Sets the bargraph as a vertical controller for external devices. Indicator levels are defined in the AXCESS software program. When a control level is set on the vertical graph, control data is sent to the control system to control an external device.

— BARGRAPH CENTERING Sets the bargraph as a vertical controller with a default control level. Levels are defined in the AXCESS software program. When a control level change is sent to the control system, the external device changes accordingly until the control data input stops. Then the control level on the vertical graph returns to the default position and the external device returns to a default control position.

— SLIDER DISPLAY Sets the slider as a horizontal status indicator for external devices. Levels are defined in the AXCESS software program.

— SLIDER ACTIVE Sets the slider as a controller for external devices. Control levels are defined in the AXCESS software program. When a control level is set on the horizontal graph, control data is sent to the control system to control an external device.

—SLIDER CENTERING Sets the slider as a horizontal controller with a default control level. Control levels are defined in the AXCESS software program. When a control level change is sent to the control system, the external device changes accordingly until the control data input stops. Then the control level on the graph returns to the default position and the external device returns to its default control position.

—BATTERY VOLTAGE Sets the button to show the voltage level of the battery (if equipped).

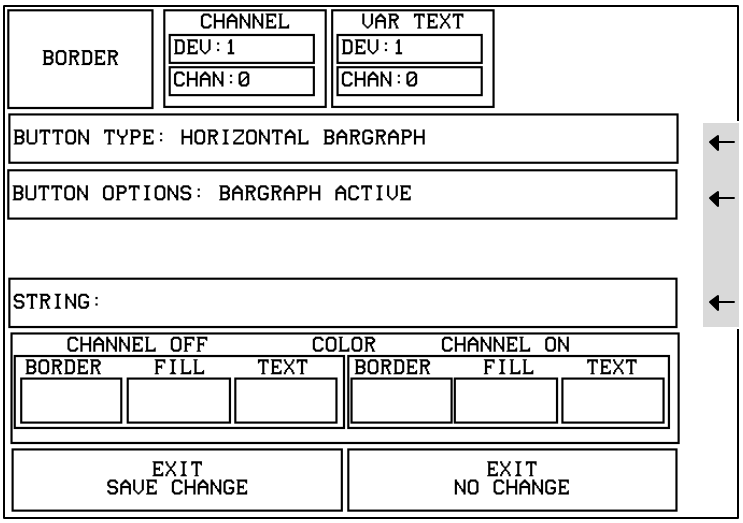
- **STRING** Opens the keyboard where you enter the data string to be sent to the control system via AXlink or RF communications. The data string appears in the STRING button. Press ABORT to close the menu.

Properties Page — Button Type: Horizontal Bargraph

Sets the button type to a horizontal bargraph. BUTTON TYPE HORIZONTAL BARGRAPH and associated options appear in the PROPERTIES page as shown in Figure 180.

Figure178

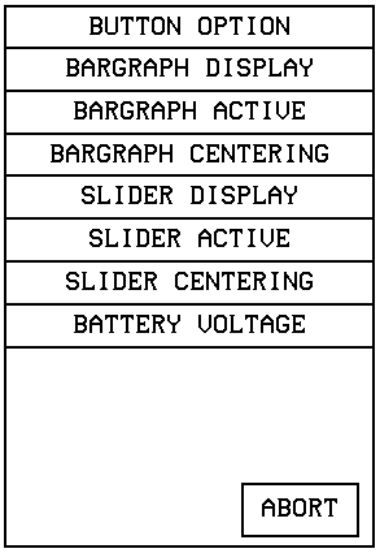
BUTTON TYPE: HORIZONTAL BARGRAPH options



- **BUTTON OPTIONS** Opens the BUTTON OPTION menu (Figure 171) where you set the button type. Press ABORT to close the menu.

Figure179

BUTTON OPTION menu



— BARGRAPH DISPLAY Sets the bargraph as a vertical indicator for external devices. Indicator levels are defined in the AXCESS software program.

— BARGRAPH ACTIVE Sets the bargraph as a vertical controller for external devices. Indicator levels are defined in the AXCESS software program. When a control level is set on the vertical graph, control data is sent to the control system to control an external device.

— BARGRAPH CENTERING Sets the bargraph as a vertical controller with a default control level. Levels are defined in the AXCESS software program. When a control level change is sent to the control system, the external device changes accordingly until the control data input stops. Then the control level on the vertical graph returns to the default position and the external device returns to a default control position.

— SLIDER DISPLAY Sets the slider as a horizontal status indicator for external devices. Levels are defined in the AXCESS software program.

— SLIDER ACTIVE Sets the slider as a controller for external devices. Control levels are defined in the AXCESS software program. When a control level is set on the horizontal graph, control data is sent to the control system to control an external device.

— SLIDER CENTERING Sets the slider as a horizontal controller with a default control level. Control levels are defined in the AXCESS software

program. When a control level change is sent to the control system, the external device changes accordingly until the control data input stops. Then the control level on the graph returns to the default position and the external device returns to its default control position.

— BATTERY VOLTAGE Sets the button to show the voltage level of the battery (if equipped).

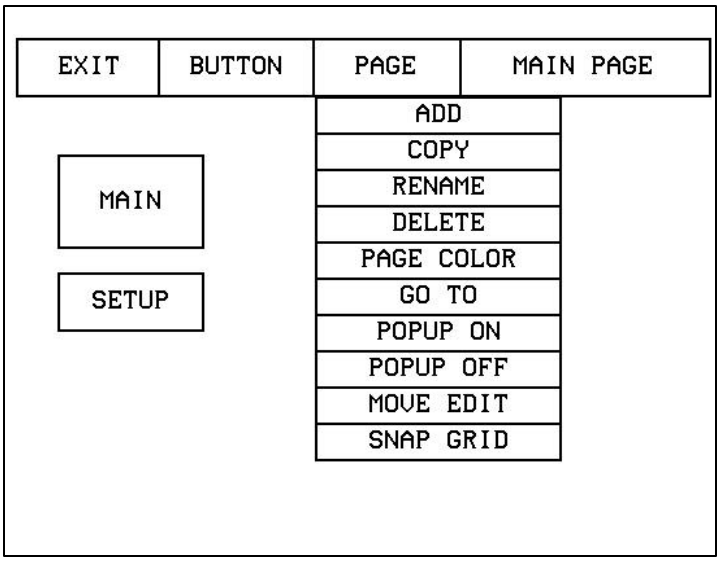
- **STRING** Opens the keyboard where you enter the data string to be sent to the control system via AXlink, RS-232 or RF communications. The data string appears in the STRING button. Press ABORT to close the menu.

Edit Bar — Page Menu Options

Press PAGE in the Edit bar to open the PAGE menu options as shown in Figure 180.

Figure180

PAGE menu options



The PAGE menu options include operations to add, copy, rename, delete, change the page color, go to a page, turn popup pages on/off, move the Edit bar, and snap to a grid. Press the EXIT button on the Edit bar to close the menu options.

Add

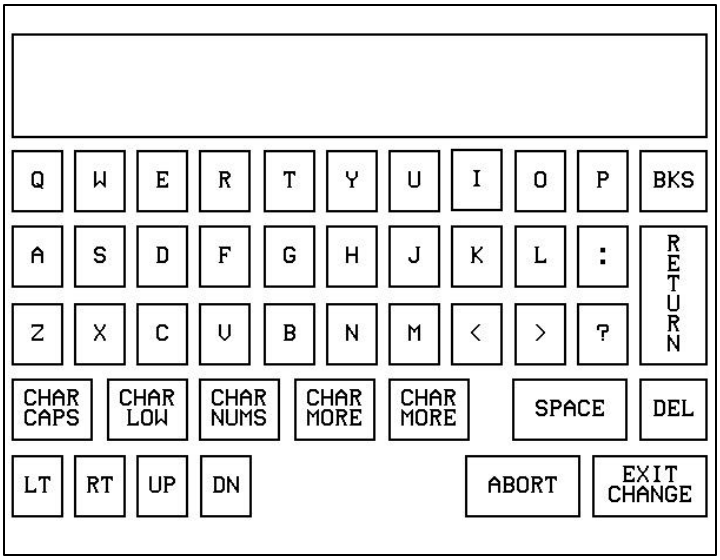
Note

The new page must have a button with assigned attributes before it can be used.

Press ADD to add a new Touch Panel page. This command opens the keyboard (Figure 181) so you can name your new page. The text appears in the window at the top of the keyboard. If the text string exceeds the space in the page button of the Edit Bar, the Touch Panel generates an error message. Reduce the font size to clear the error message.

Figure181

Keyboard



Note

Page naming does not allow you to change the font type, as for such things as popup pages and buttons.

— CHAR CAPS Sets the keyboard to uppercase characters.

— CHAR LOW Sets the keyboard to lowercase characters.

— CHAR NUMS Sets the keyboard to numeric characters.

— CHAR MORE Toggles the keypad to special characters.

— SPACE Enters a blank space.

— DEL Deletes a space or character where the flashing cursor appears.

— LT, RT, UP, DN Moves the flashing cursor position left, right, up, and down.

— ABORT Cancels the current task and returns you to the previous screen.

— EXIT CHANGE Returns you to the previous screen while effecting the change that was made within the keyboard.

Copy

Press COPY to make a copy of the current page. This command opens the keyboard (Figure 181). Use the keyboard to give the copied page a new name. Choose EXIT CHANGE to store the new page name in memory.

Rename

Press RENAME to rename the current page. This command opens the keyboard (Figure 181). Use the keyboard to rename the current page. Press EXIT CHANGE to store the new page name in memory.

Delete

Press DELETE to delete the current page. This command opens the delete message shown in Figure 182. You cannot delete the MAIN page or Page 1.

Figure182

DELETE decision message

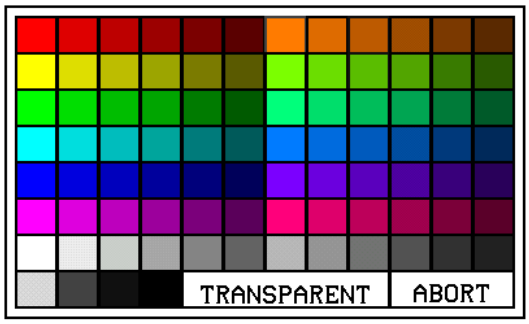
- **YES** Deletes the page and returns to the MAIN page.
- **NO** Cancels the deletion process and returns to the current page.

Page Color

Press PAGE COLOR to open the color palette shown in Figure 183, and set the page

Figure183

Color palette



Note

This option will either show the button as blank or display video if the panel is video capable.

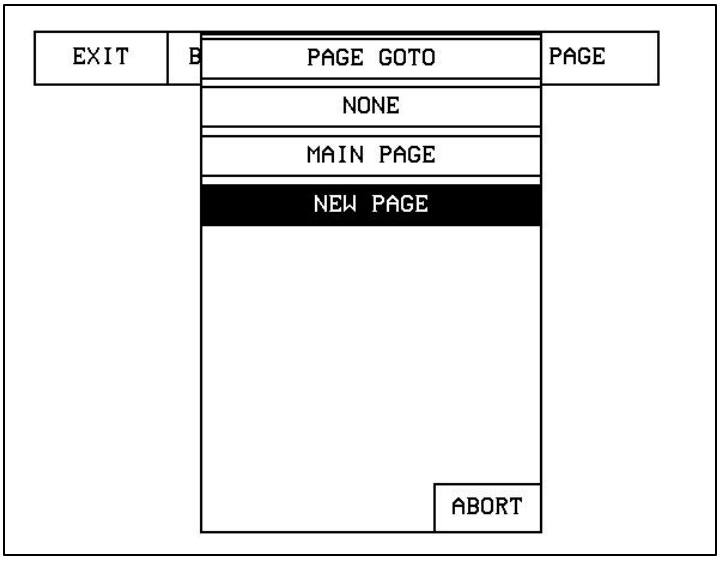
- **TRANSPARENT** Sets the page color to transparent (no color).
- **ABORT** Cancels the color selection process and returns to the current page.

Go to

Press GO TO to open the PAGE GOTO menu (Figure 184), and select the target page.

Figure184

PAGE GOTO list



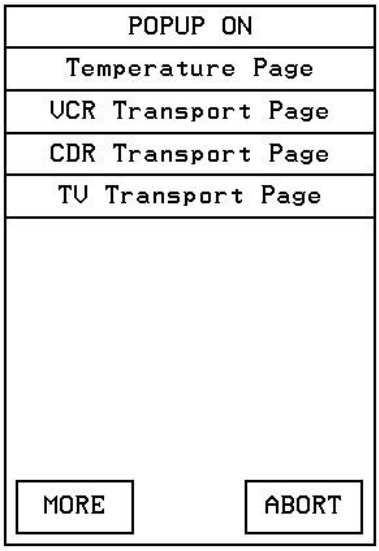
- **ABORT** Cancels the Go To process and returns to the current page.

Popup On

Press POPUP ON to open the POPUP ON menu shown in Figure 185.

Figure185

POPUP ON menu



Note

Popup pages are created in TPDesign3, then downloaded into the Touch Panel. For detailed information on popup pages, refer to the *TPDesign Touch Panel Program (version 3.1 or higher)* instruction manual.

Press a popup page in the menu to open the popup page and return to the current page.

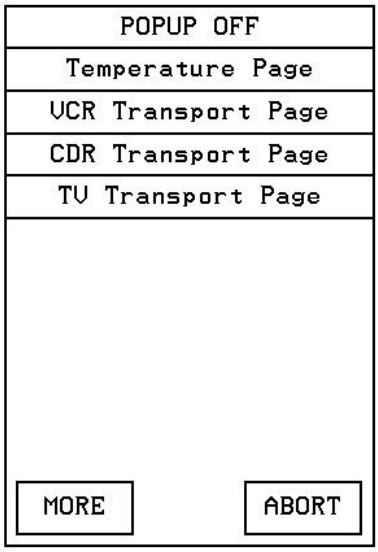
- **MORE** Provides more options from the POPUP ON page.
- **ABORT** Cancels the POPUP ON process and returns to the current page.

Popup Off

Press POPUP OFF to open the POPUP OFF menu shown in Figure 186.

Figure186

POPUP OFF list



Press a popup page in the menu to close the selected popup page and return to the current page.

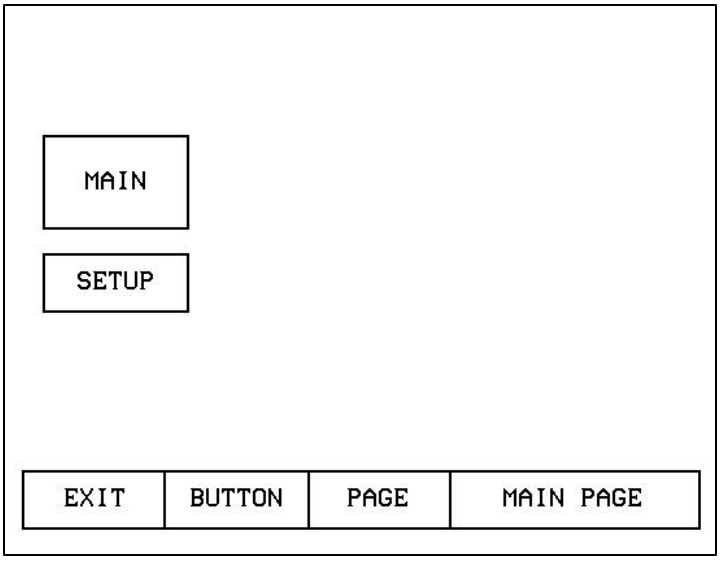
- **MORE** Provides more options from the POPUP OFF page.
- **ABORT** Cancels the POPUP OFF process and returns to the current page.

Move Edit

Press MOVE EDIT in the PAGE menu to move the Edit bar to the bottom of the page. Press the EDIT button to open the Edit bar as shown in Figure 187.

Figure187

Main page after using the MOVE EDIT option



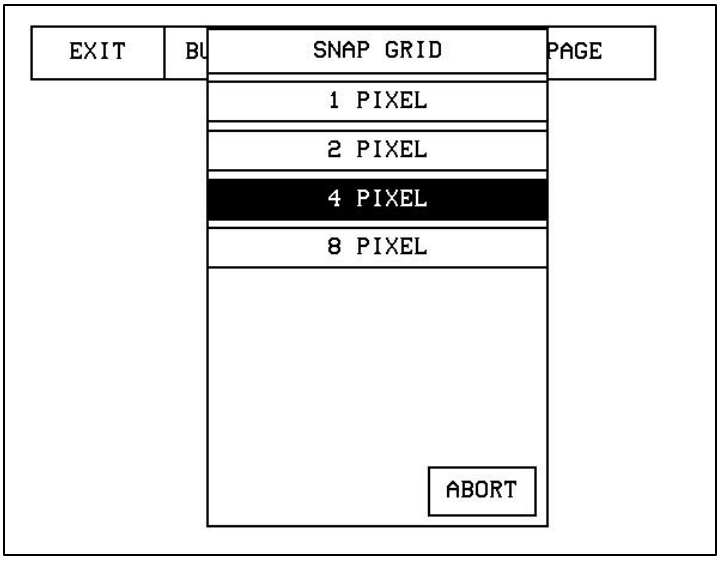
Press MOVE EDIT again to move the EDIT button back to its original position at the top of the page.

Snap Grid

Press SNAP GRID to set up an invisible grid on the page. The grid allows you to easily align buttons on the page. This command opens the SNAP GRID list shown in Figure 188.

Figure188

SNAP GRID list



Set the grid frequency in pixels. Select the 1, 2, 4, or 8 PIXEL option to set the grid and return to the current page.

- **ABORT** Cancels the SNAP GRID process and returns to the current page.

AXCESS Programming

Overview

You can program the Touch Panel to perform a wide variety of operations using AXCESS Send_Commands and variable text commands. Use the commands described in this section along with the *AXCESS Programming Language* instruction manual to program the Touch Panel.

System Send_Commands

System Send_Commands (Figure 189) are stored in the AXCESS Central Controller and direct the Touch Panel to perform various operations.

Figure189

System Send_Commands

System Send_Commands

Command	Description
`'ABEEP'`	Output one panel beep even if the Beep value is set to 0 in the Setup page. Example: `SEND_COMMAND TP,'ABEEP'` Beeps the panel.
`'ADBEEP'`	Output a double-beep even if the Double Beep value is set to 0 in the Setup page. Example: `SEND_COMMAND TP,'ADBEEP'` Double-beeps the panel.
`'AKEYB-<text string>'`	Open the Touch Panel keyboard and initialize the text string entry. The keyboard string is set to null during power-up and is stored until power-down. <text string> = 0 - 59 characters Example: `SEND_COMMAND TP,'AKEYB-TOUCH HERE'` Opens the Touch Panel keyboard with TOUCH HERE in the display.

System Send_Commands (cont.)	
Command	**Description**
'AKEYP-<number string>'	Open the Touch Panel keypad and initialize the number string entry. The keypad string is set to null during power-up and is stored until power-down. <number string> = 0 - 9999 Example: SEND_COMMAND TP,'AKEYP-1988' Opens the Touch Panel keypad with 1988 in the display.
'AKEYR'	Close the Touch Panel keyboard or keypad opened with the 'AKEYB', 'AKEYP', or 'PKEYP' commands. Example: SEND_COMMAND TP,'AKEYR' Closes the keyboard or keypad opened using the 'AKEYB', 'AKEYP', or 'PKEYP' commands.
'BEEP'	Output one beep. The Beep button in the Protected Setup page must be set to 1 - 10 for this command. Example: SEND_COMMAND TP,'BEEP' Beeps the panel if the Beep button is not set to 0.
'BRIT=<level>'	Adjust brightness of display. The brightness range is 1 (minimum) to 8 (maximum). <level> = 1 - 8 Example: SEND_COMMAND TP,'BRIT=8' Sets to highest brightness level.
'CALIBRATE'	Start Touch Panel calibration. Example: SEND_COMMAND TP,'CALIBRATE' Starts the calibration operation on the Touch Panel.

System Send_Commands (cont.)

Command	Description
'CLOCK <mm-dd-yy> <hh:mm:ss>'	Set the time and date. <mm = 01 - 12, dd = 01 - 31, yy = 00 - 99 hh = 00 - 23, mm = 00 - 59, ss = 00 - 59> Example: SEND_COMMAND TP,'CLOCK 02-08-95 19:16:00' Sets the Touch Panel's date to February 8, 1995, and time to 7:16 p.m.
'DBEEP'	Output a double-beep. This command works only if the Double Beep value in the Protected Setup page is set to ON. Example: SEND_COMMAND TP,'DBEEP' Double-beeps the panel.
'PAGE-<page name>'	Flip to page with specified page name. <page name> = 1 - 50 ASCII characters Example: SEND_COMMAND TP,'PAGE-MAIN PAGE' Flips the Touch Panel to the page named MAIN PAGE.
'PKEYP-<number string>'	Display asterisks (*) for keypad entries. <number string> = 0 - 9999 Example: SEND_COMMAND TP,'PKEYP-1988' Displays the Touch Panel keypad with **** instead of 1988.
'PPOF - <page name>'	Close a specific popup page. <page name> = 1 - 50 ASCII characters Example: SEND_COMMAND TP,'PPOFF-Popup Page 1' Closes Popup Page 1.

System Send_Commands (cont.)

Command	Description
'PPON - <page name>'	Open a specific popup page. <page name> = 1 - 50 ASCII characters Example: SEND_COMMAND TP,'PPON-Popup Page 1' Opens Popup Page 1.
'RESET'	Clear panel status (same as power up). Data stored in memory is not cleared. Example: SEND_COMMAND TP,'RESET' Resets the Touch Panel.
'SETUP'	Go to the Setup page. Example: SEND_COMMAND TP,'SETUP' Flips the Touch Panel to the Setup page.
'SLEEP'	Switch the Touch Panel to screen-saver mode. Example: SEND_COMMAND TP,'SLEEP' Activates the screen-saver mode.
'TPAGEOFF'	Deactivate page tracking. Example: SEND_COMMAND TP,'TPAGEOFF' Deactivates the page tracking option.

System Send_Commands (cont.)

Command	Description

'TPAGEON'	Activate page tracking.
	Example:
	SEND_COMMAND TP,'TPAGEON'
	DEFINE_DEVICE
	TP1 = 128 (*AMX Touch Panel*)
	TP2 = 129 (*AMX Touch Panel*)
	DEFINE_VARIABLE
	TP1_BUFFER[100] (*Buffer for TP1*)
	TP2_BUFFER[100] (*Buffer for TP2*)
	TRASH[50] (*For Parsing Above*)
	DEFINE_START
	CREATE_BUFFER TP1,TP1_BUFFER
	CREATE_BUFFER TP2,TP2_BUFFER
	SEND_COMMAND TP1,'TPAGEON'
	SEND_COMMAND TP2,'TPAGEON'
	DEFINE_PROGRAM
	
	IF(LENGTH_STRING(TP1_BUFFER))
	{
	IF(FIND_STRING(TP1_BUFFER,'PAGE-',1))
	{
	TRASH=REMOVE_STRING(TP1_BUFFER,'PAGE-',1)
	SEND_COMMAND TP2,"'PAGE-', TP1_BUFFER"
	CLEAR_BUFFER TP1_BUFFER
	}
	IF((FIND_STRING(TP1_BUFFER,'PPON-',1)
	OR(FIND_STRING(TP1_BUFFER',(PPOF-',1)))
	{
	SEND_COMMANDTP2,TP1_BUFFER
	CLEAR_BUFFER TP1,BUFFER
	}
	}
	IF (LENGTH_STRING(TP2_BUFFER))
	{

System Send_Commands (cont.)

Command	Description

	IF(FIND_STRING(TP2_BUFFER,'PAGE-',1))
	{
	TRASH=REMOVE_STRING(TP2_BUFFER,'PAGE-',1)
	SEND_COMMAND TP1,"'PAGE-', TP2_BUFFER"
	CLEAR_BUFFER TP2_BUFFER
	}
	}
	In this program, the command string is sent to the Master in the 'PAGE-(page name)' format. The string can be captured with the CREATE_BUFFER command for one panel and sent to another panel.

'VIDI-<interlace mode>'	Set the video-compatible Touch Panel to display composite video signal in an interlaced display format. Interlaced video refreshes the entire video display at specific time intervals. <interlace mode> = 0 (off) or 1 (on) Example: SEND_COMMAND TP,'VIDI-1' Activates interlace mode on the video-compatible Touch Panel.
'WAKE'	Deactivate screen-saver mode and reset sleep timer. Example: SEND_COMMAND TP,'WAKE' Deactivates the Touch Panel screen-saver mode and resets the sleep timer.
'ZAP!'	Clear all memory and erase buttons, pages, drawings, and symbols. Example: SEND_COMMAND TP,'ZAP!' Clears all memory and erases all buttons, pages, drawings, and symbols.

Note

The Color Video Touch Panel does not support NON-INTERLACE video.

Warning

You should only use the ZAP! command to erase all the stored data in the Touch Panel. The data cannot be recovered after it is erased.

Colors and Programming Numbers

The colors and their programming numbers are listed in Figure 190, and can be used to set the colors on buttons, sliders, gauges, and pages. The lowest color number represents the lightest color-specific display, and the highest number represents the darkest display. For example, the color number 0 is light red, and 5 is dark red.

Figure190

Colors and programming numbers

Colors and programming numbers

Color	No.	Color	No.
Red	0 - 5	Purple	54 - 59
Orange	6 - 11	Magenta	60 - 65
Yellow	12 - 17	Pink	66 - 71
Lime	18 - 23	White	72 - 77
Green	24 - 29	Gray	78 - 83
Aqua	30 - 35	More Gray	84 - 86
Cyan	36 - 41	Black	87
Royal	42 - 47	Transparent	255
Blue	48 - 53		

Font Styles and Programming Numbers

Figure 191 lists the font styles and their numbers you can use to program the text fonts on buttons, sliders, gauges, and pages. The programming numbers are assigned consecutively when they are downloaded to the Touch Panel. For more information on variable fonts, see the *Setting the variable text code* subsection.

Figure191

Font styles and programming numbers

Font styles and programming numbers

No.	Font styles	No.	Font styles
1	Extra small	5	Extra large
2	Small	6	Hollow medium
3	Medium	8	Hollow extra large
4	Large	32-255	Variable fonts

Note

You must import variable text fonts into a TPDesign 3 project file and download the project file containing the fonts to the Touch Panel. The variable fonts are assigned programming numbers by the Touch Panel during the download process.

Border Styles and Programming Numbers

Figure 192 lists border styles and their numbers you can use to program borders on buttons, sliders, and gauges.

Figure192

Border styles and programming numbers

Border styles and programming numbers

No.	Border styles	No.	Border styles
0	No border	11	Double shadow
1	No border special	20	3-dimensional rectangle 1
2	Single line	21	3-dimensional rectangle 2
3	Double line	22	3-dimensional round 1
4	Triple line	23	3-dimensional round 2
5	Single rounded	24	3-dimensional neon 1
6	Double rounded	25	3-dimensional neon 2
7	Single raised	26	3-dimensional neon blue
8	Double raised	27	3-dimensional neon green
9	Triple raised	40	Single diamond
10	Double-line two single	41	Double diamond

Shorthand Send_Commands

Figure 193 lists the shorthand send commands you can use with the Touch Panels. The shorthand command data is one-byte, non-ASCII format except for pages, passwords, text, and bitmap names.

Figure193

Shorthand Send_Commands

Note

Shorthand commands were designed by AMX to streamline receiving, processing, and transmitting AXCESS Central Controller data. The shorthand commands operate control equipment just like the standard Send_Commands still used in a wide variety of AMX products, but they are simply smaller byte-for-byte, and, thus, processed more efficiently.

Shorthand Send_Commands

Command	Description
"'@CBF',<variable text address>,<color_number>"	Set the OFF feedback border color to the specified color. <variable text address> = 1 - 255 <color_number> = see Figure 190 Example: `SEND_COMMAND TP,"'@CBF',1,0"` Sets the OFF feedback border color to RED for the variable text button 1.
"'@CBN',<variable text address>,<color_number>"	Set the ON feedback border color to the specified color. <variable text address> = 1 - 255 <color_number> = see Figure 190 Example: `SEND_COMMAND TP,"'@CBN',2,78"` Sets the ON feedback border color to GRAY for variable text button 2.
"'@CFF',<variable text address>,<color_number>"	Set the OFF feedback fill color to the specified color. <variable text address> = 1 - 255 <color_number> = see Figure 190 Example: `SEND_COMMAND TP,"'@CFF',1,72"` Sets the OFF feedback fill color to WHITE for variable text button 1.

Shorthand Send_Commands (cont.)

Command	Description
"'@CFN',<variable text address>,<color_number>"	Set the ON feedback fill color to the specified color. <variable text address> = 1 - 255 <color_number> = see Figure 190 Example: SEND_COMMAND TP,"'@CFN',1,30" Sets the ON feedback fill color to AQUA for variable text button 1.
"'@CPG',<color_number>,'<page name>'"	Set the page with specified page name background color to the specified color. <color_number> = see Figure 190 <page name> = 1 - 50 ASCII characters Example: SEND_COMMAND TP,"'@CPG',87,'Main Page'" Sets the page title to Main Page, and the color to BLACK.
"'@CPP',<color_number>,'<pop-up page name>'"	Set the page with specified page name background color to the specified color. <color_number> = see Figure 190 <pop-up page name> = 1 - 50 ASCII characters Example: SEND_COMMAND TP,"'@CPP',54,'Audio Page'" Sets the pop-up page title to Audio Page, and the color to PURPLE.
"'@CTF',<variable text address>,<color_number>"	Set the OFF feedback text color to the specified color. <variable text address> = 1 - 255 <color_number> = see Figure 190 Example: SEND_COMMAND TP,"'@CTF',1,48" Sets the OFF feedback text color to BLUE for variable text button 1.

Shorthand Send_Commands (cont.)

Command	Description
"'@CTN',<variable text address>,<color_number>"	Sets the ON feedback text color to the specified color. <variable text address> = 1 - 255 <color_number> = see Figure 190 Example: `SEND_COMMAND TP,"'@CTN',1,72"` Sets the ON feedback text color to WHITE for variable text button 1.
'@IDF'	Query the Touch Panel to return a string with the DOS filename of the Touch Panel. Example: `SEND_COMMAND TP,'@IDF'` The Touch Panel returns its DOS filename in a string.
'@IDP'	Query the Touch Panel to return a string with the TPDesign 3 project name. Example: `SEND_COMMAND TP,'@IDP'` The Touch Panel returns a string that contains its TPDesign 3 project name.
'@PPA-<page name>'	Removes all popup pages from a specified page. If no page is specified, the current page is used. Example: `SEND_COMMAND TP,'@PPA-Main Page'` If there were several popup pages on 'MAIN PAGE' that are active, sending the previous command would remove them all from 'MAIN PAGE'.
'@PPX-<popup page>'	Removes all popup pages from all pages in a panel. The group that needs to be turned Off must contain the popup page given. Example: `SEND_COMMAND TP,'@PPX-POP VCR'` The popup page 'POP VCR' must be is a popup group. If so then any popup page in that group will be turned Off on all pages.

Shorthand Send_Commands (cont.)

Command	Description
'@PPF-<popup page name>;<page name>'	Deactivate a popup page on a Touch Panel page. <popup page name> = target popup page name <page name> = target Touch Panel page name Example: SEND_COMMAND TP,'@PPF-Laser Disc 2 Transport Control;Laser Disc Control Page' Deactivates the Laser Disc 2 Transport Control popup page on the Laser Disc Control Page.
'@PPK-<popup page name>'	Deactivate a popup page on *all* Touch Panel pages. <popup page name> = target popup page name <page name> = target Touch Panel page name Example: SEND_COMMAND TP,'@PPK-Laser Disc 2 Transport Control' Deactivates the Laser Disc 2 Transport Control popup page on *all* Touch Panel pages.
'@PPN-<popup page name>;<page name>'	Activate a popup page on a Touch Panel page. <popup page name> = Popup page name <page name> = Page name Example: SEND_COMMAND TP,'@PPN-Laser Disc 2 Transport Control;Laser Disc Control Page' Activates the Laser Disc 2 Transport Control popup page on the Laser Disc Control Page.
'@PRO-<protected setup password>'	Set the password for the Protected Setup page on the Touch Panel. <protected setup password> = 0 through 9999 Example: SEND_COMMAND TP,'@PRO-1988' Sets the Touch Panel's Protected Setup page password to 1988.

Shorthand Send_Commands (cont.)

Command	Description
'@PWD-<page flip password>'	Set the password for the Page Flip on the Touch Panel. <page flip password> = 0 through 9999 Example: SEND_COMMAND TP,'@PWD-1988' Sets the page flip password to 1988.
'@SSL-<string>'	Change the Sleep string sent to the control system when the Touch Panel activates Sleep Mode. <string> = alphanumeric characters Example: SEND_COMMAND TP,'@SSL-Touch Panel Deactivated' Sends Touch Panel Deactivated to the control system.
'@SST-<string>'	Change the Startup string sent to the control system when the Touch Panel powers up. <string> = alphanumeric characters Example: SEND_COMMAND TP,'@SSL-Touch Panel Power On' Sends Touch Panel Power On to the control system when the Touch Panel powers up.
'@SWK-<string>'	Change the Wakeup string sent to the control system when the Touch Panel is activated. <string> = alphanumeric characters Example: SEND_COMMAND TP,'@SWK-Touch Panel Activated' Sends Touch Panel Activated to the control system.

Color Send_Commands

Use the color Send_Commands (Figure 194) to set the colors for text, buttons, and pages.

Figure194

Color Send_Commands

Color Send_Commands

Command	Description
'CALL<variable text address>-<data>'	Set the colors for a variable text button. See Figure 190 for color numbers. <variable text address> = 1 - 255 <data> = 6 color_number series for: FILL COLOR ON FILL COLOR OFF BORDER COLOR ON BORDER COLOR OFF TEXT COLOR ON TEXT COLOR OFF Example: SEND_COMMAND TP,'CALL1-48 72 0 0 72 48' Sets variable text button 1 to: FILL COLOR ON = BLUE FILL COLOR OFF = WHITE BORDER COLOR ON = RED BORDER COLOR OFF = RED TEXT COLOR ON = WHITE TEXT COLOR OFF = BLUE
'CBOFF<variable text address>-<color _number>'	Set the OFF feedback border color to the specified color. <variable text address> = 1 - 255 <color_number> = see Figure 190 Example: SEND_COMMAND TP,'CBOFF1-0' Sets the OFF feedback border color to RED for the variable text button 1.

Note

You must use the variable text assignments to change button colors.

Color Send_Commands (cont.)

Command	Description
'CBON<variable text address>-<color _number>'	Set the ON feedback border color to the specified color. <variable text address> = 1 - 255 <color_number> = see Figure 190 Example: SEND_COMMAND TP,'CBON1-48' Sets the ON feedback border color to blue for variable text button 1.
'CFOFF<variable text address>-<color _number>'	Set the OFF feedback fill color to the specified color. <variable text address> = 1 - 255 <color_number> = see Figure 190 Example: SEND_COMMAND TP,'CFOFF1-72' Sets the OFF feedback fill color to WHITE for variable text button 1.
'CFON<variable text address>-<color _number>'	Set the ON feedback fill color to the specified color. <variable text address> = 1 - 255 <color_number> = see Figure 190 Example: SEND_COMMAND TP,'CFON1-48' Sets the ON feedback fill color to BLUE for variable text button 1.
'CPAGE<color_number>-<page name>'	Set the background page color to the specified color. <color_number> = see Figure 190 <page name> = 1 - 50 ASCII characters Example: SEND_COMMAND TP,'CPAGE48-MAIN PAGE' Sets the background color on the MAIN PAGE to blue.

Note

Page names are case-sensitive.

Color Send_Commands (cont.)	
Command	**Description**
'CTOFF<variable text address>-<color _number>'	Set the OFF feedback text color to the specified color. <variable text address> = 1 - 255 <color_number> = see Figure 190 Example: SEND_COMMAND TP,'CTOFF1-48' Sets the OFF feedback text color to BLUE for variable text button 1.
'CTON<variable text address>-<color _number>'	Sets the ON feedback text color to the specified color. <variable text address> = 1 - 255 <color_number> = see Figure 190 Example: SEND_COMMAND TP,'CTON1-72' Sets the ON feedback text color to WHITE for variable text button 1.

Variable Text Send_Commands

Use variable text Send_Commands (Figure 195) to set the borders, fonts, and text.

Figure195

Variable text Send_Commands

Variable text Send_Commands	
Command	**Description**
"'!B',<variable text address 1-255>,<ON/OFF 0-1>"	Set a specific button to on or off. <variable text address> = 1 - 255 <on> = 0 and <off> = 1 Example: SEND_COMMAND TP, '!B',128, 1' Sets button 128 off.

Variable text Send_Commands (cont.)	
Command	**Description**
"'BTOF',<variable text address>	Set a specific button's active state to off. <variable text address> = 1 - 255 Example: SEND_COMMAND TP, 'BTOF 255' Sets the state for button 255 to off.
"'BTON',<variable text address>'	Set a specific button's active state to on. <variable text address> = 1 - 255 Example: SEND_COMMAND TP, 'BTON 128' Sets the state for button 128 to on.
"'!C',<variable text address>,<border style>,<font size>,'<new button text>'"	Set the border, font, and text in one command. <variable text address> = 1 - 255 <border style> = See Figure 192 <font size> = See Figure 191 <button text> = Enter button text to appear on button Example: SEND_COMMAND TP,"'!C',1,6,6,'VCR PLAY'" Sets the variable text button 1 title to VCR PLAY using a hollow medium font, and changes the border attribute to double rounded.
"'!F',<variable text address>,'<font size>'"	Shorthand version of 'FONT' command. <variable text address> = 1 - 255 <font size> = See Figure 191 Example: SEND_COMMAND TP,"'!F',1,'6'" Changes variable text button 1 font to hollow medium.
'FONT<variable text address>-<font size>'	Change the font size (or style) of the text in a specific button. <variable text address> = 1 - 255 <font size> = See Figure 191 Example: SEND_COMMAND TP,'FONT1-6' Changes variable text button 1 font to hollow medium.

Variable text Send_Commands (cont.)

Command	Description
"'!I',<variable text address>,'<border style>'"	Shorthand version of 'ICON' command. <variable text address> = 1 - 255 <border style> = See Figure 192 Example: SEND_COMMAND TP,"'!I',1,'6'" Changes the variable text button 1 border style to double rounded.
'ICON<variable text address>-<border style>'	Change the border style of a specific button. <variable text address> = 1 - 255 <border style> = See Figure 192 Example: SEND_COMMAND TP,'ICON25-6' Changes the variable text button 25 border style to a double-rounded shape.
"'!T',<variable text address>,'<new button text>'"	Shorthand version of 'TEXT' command. <variable text address> = 1 - 255 <new button text> = 1 - 60 characters Example: SEND_COMMAND TP,"'!T',1,'VCR PLAY'" Changes the variable text button 1 title to VCR PLAY.
'TEXT<variable text address>-<new button text>'	Enter text on a button. Use the | character to display text on multiple lines. <variable text address> = 1 - 255 <button text> = Enter button text to appear on button Example: SEND_COMMAND TP,'TEXT2-VCR|PLAY' Sets the VCR and PLAY text on variable button 2. The | character places VCR above PLAY on the button.

Shorthand Variable Text Commands

Figure 196 lists the shorthand variable text commands you can use with the Touch Panels. The shorthand command data is one-byte, non- ASCII format except for pages, passwords, text, and bitmap names.

Figure196

Shorthand variable text commands

Shorthand variable text commands

Command	Description
"'@BMF',<variable text address>,'<attribute data>'"	Set multiple attributes to a button or slider. This command allows you to program up to 12 attributes on one command line. <variable text address> = 1 - 255 <optional data> = See below Optional data: '%B',<border styles> = See Figure 192 '%F',<font styles> = See Figure 191 '%T',<button text > = ASCII characters '%P',<bitmap> = Bitmap filename '%I',<icon> = 1 - 255 (icon numbers are assigned in TPDesign3 project file) '%J',<text alignment> = 1 - 9 as shown alignment chart

Shorthand variable text commands (cont.)

Command	Description
	'%C1',<on-state fill color> = See Figure 190 for color numbers '%C2',<off-state fill color> = See Figure 190 for color numbers '%C3',<on-state border color> = See Figure 190 for color numbers '%C4',<off-state border color> = See Figure 190 for color numbers '%C5',<off-state text color> = See Figure 190 for color numbers '%C6',<on-state text color> = See Figure 190 for color numbers Example: `SEND_COMMAND TP,"'@BMF',255,'%T POWER |ON %B',4',%C1',53'"` Sets the text on button 255 to POWER ON (appears on two lines), adds a triple-line border, and sets the On-state color to dark blue.
`"'@SHO',<variable text address>,<button on/off>"`	Set a specific button to on or off. <variable text address> = 1 - 255 <0> = button off and <1> = button on Example: `SEND_COMMAND TP,"'@SHO',128,0"` Sets button 128 off.
`"'@ENA',<variable text address>,<button state on/off>"`	Set a specific button's active state to On. <variable text address> = 1 - 255 <0> = button off and <1> = button on Example: `SEND_COMMAND TP, "'@ENA',128,1"` Sets the state for button 128 on.

Shorthand variable text commands (cont.)	
Command	**Description**
"'@ICO',<variable text address>,<icon>"	Assign an icon to a button. The icon files are imported into the TPDesign 3 software program, and their numbers are assigned by the Touch Panel during the download process. <variable text address> = 1 - 255 <icon file number> = 1 - 255 Example: SEND_COMMAND TP,'"'@ICO',16,12" Adds icon 12 on button 16.
"'@BMP',<variable text address>,'<bitmap>'"	Add a bitmap file to a button. The bitmap files are imported into the TPDesign 3 software program, and their numbers are assigned by the Touch Panel during the download process. <variable text address> = 1 - 255 <bitmap> = Bitmap '%P',<bitmap> = Bitmap filename Example: SEND_COMMAND TP, "'@BMP',85,'Bitmap1'" Adds the Bitmap1 file to button 85.
"'@TXT',<variable text address>,'<text>'"	Add text on a button. Use the | character to display text on multiple lines. <variable text address> = 1 - 255 <button text> = Enter button text to appear on button Example: SEND_COMMAND TP, "'@TXT',2,'VCR|PLAY'" Sets the VCR and PLAY text on variable button 2. The | character places VCR above PLAY on the button.

Shorthand variable text commands (cont.)

Command	Description
"'@JUS',<variable text address>,<text alignment>"	Set the text alignment on a button. <variable text address> = 1 - 255 <text alignment> = 1 - 9 as shown in alignment chart 1 2 3 4 5 6 7 8 9 Example: SEND_COMMAND TP, "'@JUS',9,5" Centers the text on button 9.
"'@FON',<variable text address>,<font style>"	Set the text font on a button. <variable text address> = 1 - 255 <font style> = See Figure 191 Example: SEND_COMMAND TP, "'@FON',56,32" Sets the text on button 56 to variable font style 32.
"'@BOR',<variable text address>,<border style>"	Set the border style on a button. <variable text address> = 1 - 255 <border style> = See Figure 192 Example: SEND_COMMAND TP, "'@BOR',65 ,27" Sets the border style to 3-dimensional neon green on button 65.

Button String Commands

Figure 197 lists string commands you can assign to buttons using the Touch Panel editor. You select the PROPERTIES option in the Edit bar, press the target button, and enter the string command with the Touch Panel keyboard. Then, the string command is sent to the control system when you press the button. Refer to the *Touch Panel Reference* section for detailed editing information.

Figure197

Button string commands

Button string commands

Command	Description
`$ID<group ID number>`	Assign a group ID to a button with a standard string. <group ID number> = 0 - 15 Example: `$ID15` Sets the Touch Panel button group ID to 15.
`'$SL'`	Activate sleep mode on a wireless Touch Panel's wavepack. Example: `$SL` Activates sleep mode on the Touch Panel.
`$ST<sleep time>`	Set the time to activate sleep mode for a Touch Panel in 1-minute increments. When the Touch Panel's input time matches the sleep time, the panel goes to sleep. <sleep time> = 0 (off) - 150 minutes Example: `$ST5` Sets the sleep time to 5 minutes.
`'$VI<interlace mode>'`	Set the video-compatible Touch Panel to display composite video signal in an interlaced display format. Interlaced video refreshes the entire video display at specific time intervals. Non-interlaced video refreshes every other line of the video display at specific time intervals. <interlace mode > = 0 (off) or 1 (on) Example: `$VI1` Activates interlace mode on the video-compatible Touch Panel.

Firmware Upgrades

Overview

Firmware upgrades allow you to install the latest available operating system for your touch panel(s). This section provides the information required for removing old firmware ICs (Integrated Chips) and installing new firmware upgrade ICs.

You will need a Phillips screwdriver and a non-conducting flat-blade tool to slip under the installed firmware ICs to lift them up and out of their sockets.

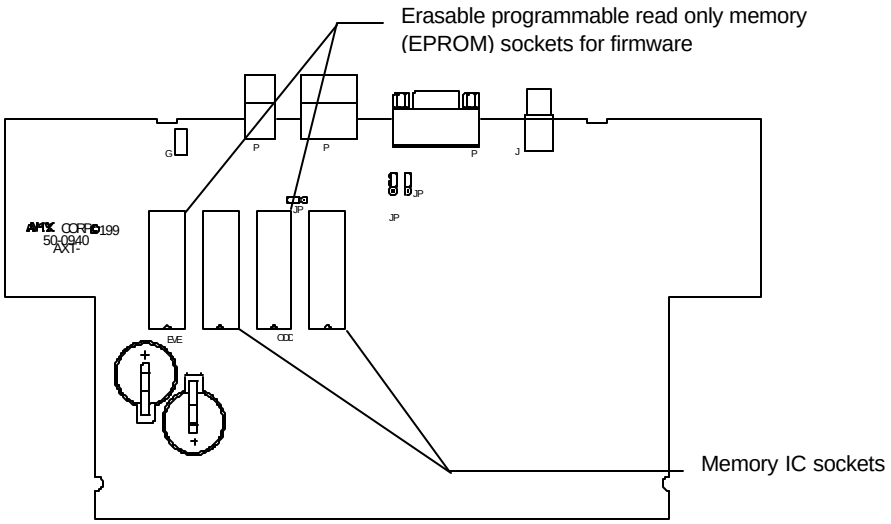
AXT-CV and AXT-CA

To install the firmware upgrade into the AXT-CV and AXT-CA CATP:

1. Discharge the static electricity from your body by touching a grounded object.
2. Remove the AXlink connector (and other connectors if applicable) from the rear side of the CATP.
3. Flip the CATP face down onto a soft cloth, and remove the four Phillips-head screws from the bottom panel. Then, gently remove the panel.
4. Gently rotate the circuit card backward until you can lay it down flat with the batteries exposed. Figure 198 shows the location of the firmware IC sockets on the circuit card.

Figure198

IC connector sockets



5. Carefully pry the ICs out of their socket connectors with a non-conducting flat-blade tool and insert the two upgrade firmware ICs into the sockets indicated in
   Figure 198.
6. Rotate the circuit card back to the original position and place it in the CATP housing.
7. Place the bottom panel onto the touch panel and align the screw holes. Insert the four Phillips-head screws and tighten.
8. Plug all connectors back into the touch panel.

AXU-CV(/PB), AXU-CA(PB), AXM-CV(/PB), and AXM-CA(PB)

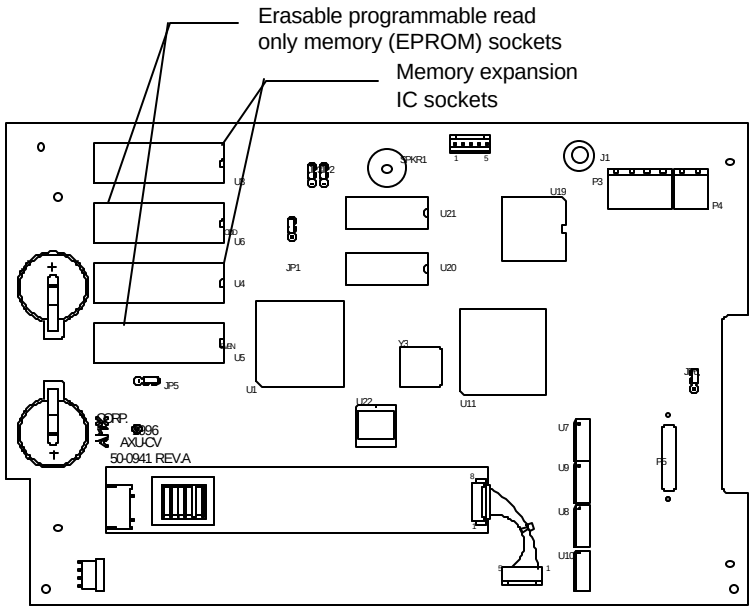
To install the firmware upgrade into the AXU-CV(/PB), AXU-CA(PB), AXM-CV(/PB), and AXM-CA(PB) touch panels:

1. Discharge the static electricity from your body by touching a grounded object.
2. Insert a flat-blade tool into the release slot on the CATP's bezel and remove the engraved overlay.
3. Remove the four #6-32 mounting screws and carefully lean the CATP backward to expose the AXlink and RS-232 (optional) wiring.
4. Disconnect the AXlink and RS-232 connector and remove the CATP from the back box or equipment rack.

5. Flip the touch panel facedown onto a soft cloth. Figure 199 shows the connectors on the circuit card.

Figure199

Touch panel circuit card, and 32-socket IC connector (U4)



6. Carefully pry the firmware ICs out of the socket connectors labeled U5 and U6 with a non-conducting flat-blade tool and insert the two upgrade firmware ICs into sockets U5 and U6.
7. Return the touch panel to the back box or equipment rack and connect the AXlink and RS-232 connector.
8. Place the touch panel back into the back box or equipment rack and insert the four mounting screws and tighten.
9. Place the engraved overlay onto the AXU-CV(/PB) or AXM-CV(/PB) bezel.

EXM-1MB Memory Upgrade

Operation

Note

This memory upgrade is necessary to allow older panels to utilize the new G3 firmware.

You must replace the CATP's 256KB integrated circuit (IC) with the EXM-1MB Memory Upgrade ICs to increase the storage capacity for control pages and symbols. The EXM-1MB Memory Upgrade consists of two 512KB memory ICs. You will need a Phillips screwdriver and a non-conducting flat-blade tool to slip under the installed 256KB IC and pry it out of its socket.

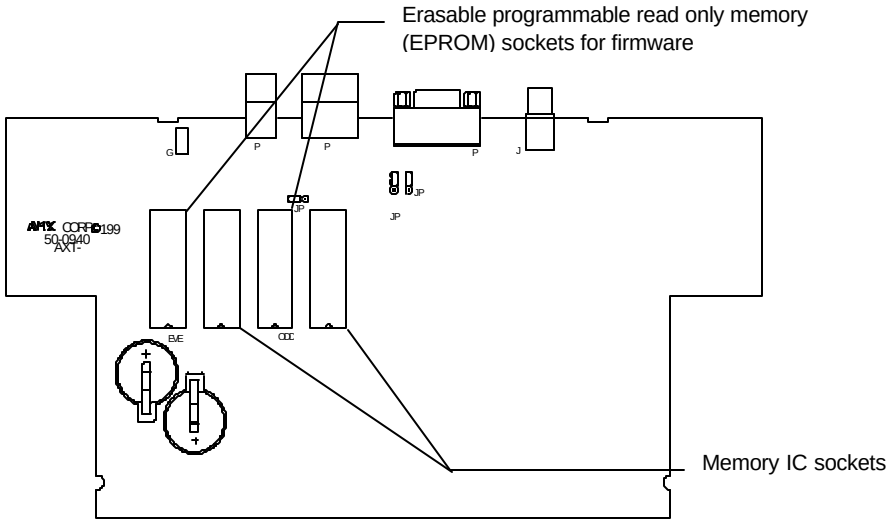
AXT-CV and AXT-CA

To install the EXM-1MB Memory Upgrade into the AXT-CV and AXT-CA CATP:

1. Discharge the static electricity from your body by touching a grounded object.
2. Remove the AXlink connector (and other connectors if applicable) from the rear side of the CATP.
3. Flip the CATP face down onto a soft cloth, and remove the four Phillips-head screws from the bottom panel. Then, gently remove the panel.
4. Gently rotate the circuit card backward until you can lay it down flat with the batteries exposed. Figure 200 shows the location of the memory IC sockets on the circuit card.

Figure200

IC connector sockets



5. Carefully pry the 256KB IC out of the socket connector with a non-conducting flat-blade tool and insert the two 512KB ICs in the sockets indicated in Figure 200.
6. Rotate the circuit card back to the original position and place it in the CATP housing.
7. Place the bottom panel onto the touch panel and align the screw holes. Insert the four Phillips-head screws and tighten.
8. Plug all connectors back into the touch panel.

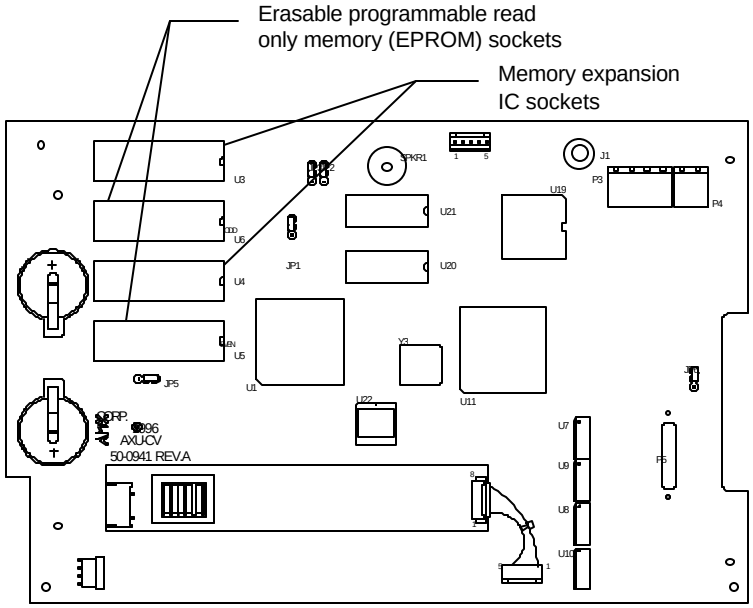
AXU-CV(/PB) and AXM-CV(/PB)

To install the EXM-1MB Memory Upgrade into the AXU-CV(/PB) or AXM-CV(/PB) touch panel:

1. Discharge the static electricity from your body by touching a grounded object.
2. Insert a flat-blade tool into the release slot on the CATP's bezel and remove the engraved overlay.
3. Remove the four #6-32 mounting screws and carefully lean the CATP backward to expose the AXlink and RS-232 (optional) wiring.
4. Disconnect the AXlink and RS-232 connector and remove the CATP from the back box or equipment rack.
5. Flip the touch panel facedown onto a soft cloth. Figure 201 shows the connectors on the circuit card.

Figure201

Touch panel circuit card, and 32-socket IC connector (U4)



6. Carefully pry the 256KB IC out of the socket connector labeled U4 with a non-conducting flat-blade tool and insert the two 512K ICs into sockets U3 and U4.
7. Return the touch panel to the back box or equipment rack and connect the AXlink and RS-232 four-pin header.
8. Place the touch panel back into the back box or equipment rack and insert the four mounting screws and tighten.
9. Place the engraved overlay onto the AXU-CV(/PB) or AXM-CV(/PB) bezel.

Color Guidelines

Overview

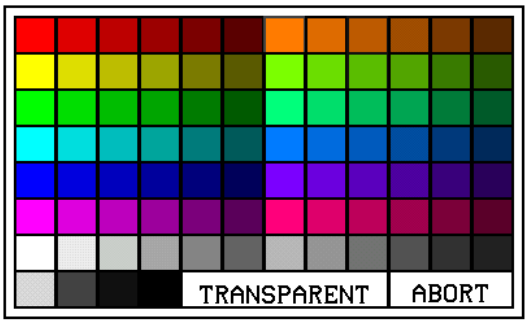
Use the guidelines in this section to determine the best colors to use for the Touch Panel pages you create.

Colors

Use any of the 88 colors shown in Figure 202 when you create Touch Panel pages to ensure the objects on the pages are visible and easy to see. The steps after the color options are additional guidelines to keep in mind.

Figure202

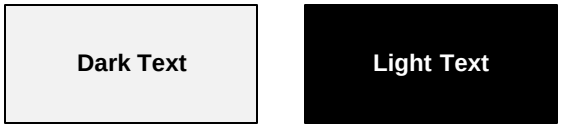
Color palette



- Use dark text on light buttons and light text on dark buttons (Figure 203).

Figure203

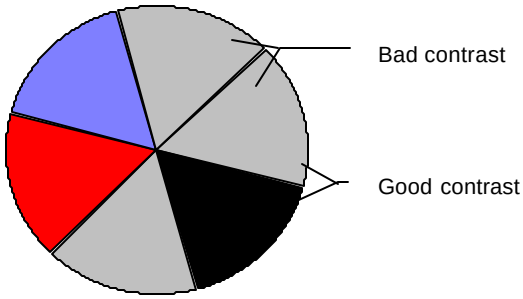
Button examples



- Avoid using adjacent colors or background shades. When you use the same colors or shades, the objects or text may be hard to see or read. The example in Figure 204 shows good and bad contrasts.

Figure204

Background shade example



- Do not use bright or intense colors for buttons that display for long periods of time. The brighter the colors, the more fatiguing to the eyes. Limit the use of bright colors to show feedback.

- If you use a graphic on a button, either make the button the same as the background on the graphic *or* change the background color of the graphic to match the button.

Specifications

Overview

This section describes the specifications for all Color Active-Matrix Touch Panels.

AXT-CA and AXT-CV

Figure 205 is a drawing of the AXT-CV and AXT-CA TiltScreen CATP. Figure 206 lists the specifications.

Figure205

AXT-CV and AXT-CA TiltScreen CATP

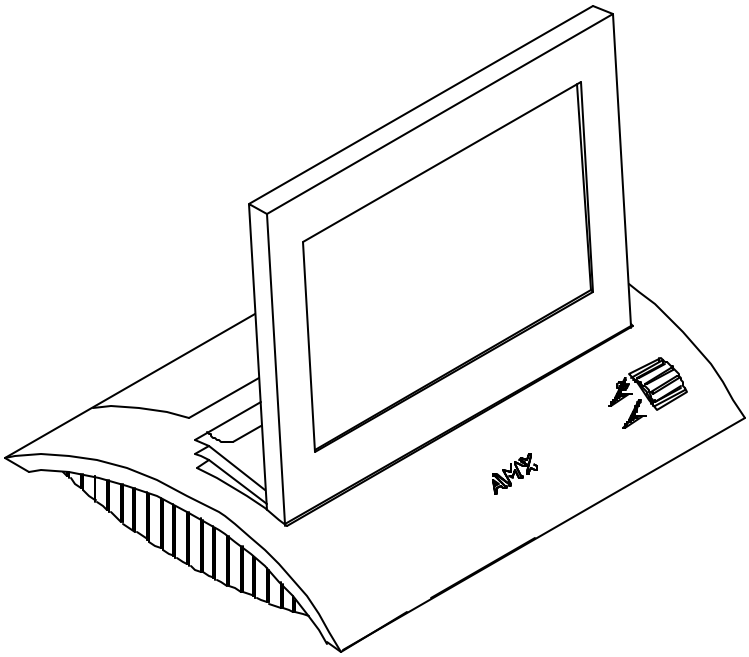


Figure206

AXT-CA(/PB) and AXT-CV(/PB) specifications

AXT-CA(/PB) and AXT-CV(/PB) specifications	
Enclosure	TiltScreen tabletop console; black plastic with matte finish
Dimensions	With SmartPack / WavePack
Base Dim. (WD)	• 7.63" x 5.97" (193.80 mm x 151.60 mm)
Unit height	• 2.52" (64.0 mm)

AXM-CA(/PB) and AXM-CV(/PB) specifications (cont.)

	Without SmartPack / WavePack
Base Dim. (WD) Display height	• 11.46" x 9.46" (291.00 mm x 240.30 mm) • 3.40" (86.40 mm) fully lowered, 8.45" (214.60 mm) fully raised
Screen Dim (HW)	5.25" x 6.96" (133.45 mm x 176.89 mm)
Weight	3.6 lbs (1.6 kg)
Display type	Active-matrix 256-color LCD
Screen Res. (HV)	640 x 480 pixels
Connectors	• Four-pin AXlink connector • RS-232 (DB9) male connector
Memory	Standard — 1 MB
Power	• AXT-CA(/PB) - 800 mA at 12 VDC • AXT-CV(/PB) - 800 mA at 12 VDC
Options:	• WAV-PK — WavePack • SMT-PK — SmartPack

Note

Video inputs on color video panels are not available during wireless operation.

AXU-CA(/PB) and AXU-CV(/PB)

Figure 207 is a drawing of the AXU-CA(/PB) and Figure 208 lists the specifications.

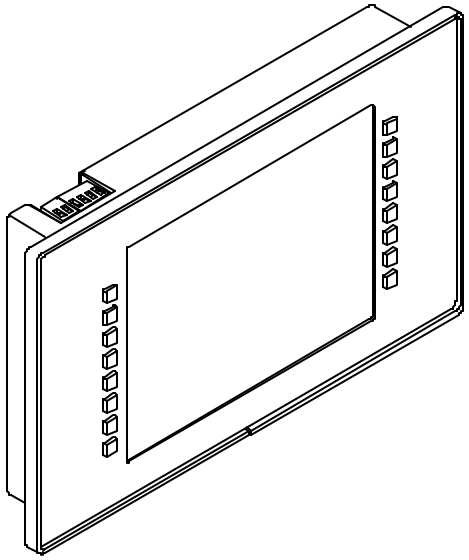


Figure207

AXU-CA(/PB) Touch Panel

Figure208

AXU-CA(/PB) and AXU-CV(/PB) specifications

AXU-CA(/PB) and AXU-CV(/PB) specifications	
Enclosure	UniMount; metal with white or black matte finish
Pushbuttons	Eight on each side of display for AXU-CA(/PB) and AXU-CV(/PB)
Dimensions (HWD)	6.88" x 12.60" x 1.79" (174.80 mm x 320.00 mm x 45.50 mm)
Screen Dim. (HW)	5.25" x 6.96" (133.45 mm x 176.89 mm)
Weight	4.3 lbs (1.9 kg)
Display type	Active-matrix 256-color LCD
Screen Res. (HV)	640 x 480 pixels
Connectors	• Four-pin (male) AXlink connector • RS-232 (DB9) male connector • Two-pin 12 VDC male connector • RCA video jack [AXU-CV (/PB) only]
Memory	Standard — 1 MB
Power	• AXU-CA(/PB) - 800-mA at 12 VDC • AXU-CV(/PB) - 800-mA at 12 VDC
Options	• External PUSHBUTTONS (AXU-CA/PB) • BB-TP1 Back box

Note

Video inputs on color video panels are not available during wireless operation.

AXM-CA(/PB) and AXM-CV(/PB)

Figure 209 is a drawing of the AXM-CV(/PB) and Figure 210 lists the specifications.

Figure209

AXM-CV(/PB) Rack-Mount Touch Panel

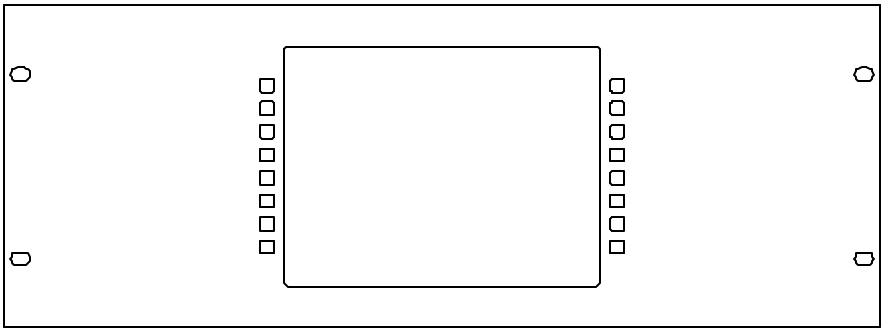


Figure210

AXM-CA(/PB) and AXM-CV(/PB) specifications

AXM-CA(/PB) and AXM-CV(/PB) specifications	
Enclosure	One UniMount; metal with white or black matte finish
Pushbuttons	Eight on each side of display for AXM-CA(/PB) and AXM-CV(/PB)
Dimensions (HWD)	7.00" x 19.00" x 1.72" (177.80 mm x 482.60 mm x 43.70 mm)
Screen Dim. (HW)	5.25" x 6.96" (133.45 mm x 176.89 mm)
Weight	4.3 lbs (1.9 kg)
Display type	Active-matrix 256-color LCD
Screen Res. (HV)	640 x 480 pixels
Connectors	• Four-pin (male) AXlink connector • RS-232 (DB9) male connector • Two-pin 12 VDC male connector • RCA video jack [AXU-CV (/PB) only]
Memory	Standard — 1 MB
Power	• AXM-CA(/PB) - 800 mA at 12 VDC • AXM-CV(/PB) - 800 mA at 12 VDC
Options	External pushbuttons (AXM-CA/PB)

Technical Support

Overview

Prior to calling AMX for assistance, check your AXlink, power, and cable connections, and the integrity of your software operating system. Reload the software to see if something in the program is causing the problem. If the problem is not resolved, reload the program from a new copy of your master disk. If you still have a service problem, refer to the list shown in Figure 211 and map (Figure 212) to determine your team. Then, call your AMX Support Team for technical assistance.

Figure211

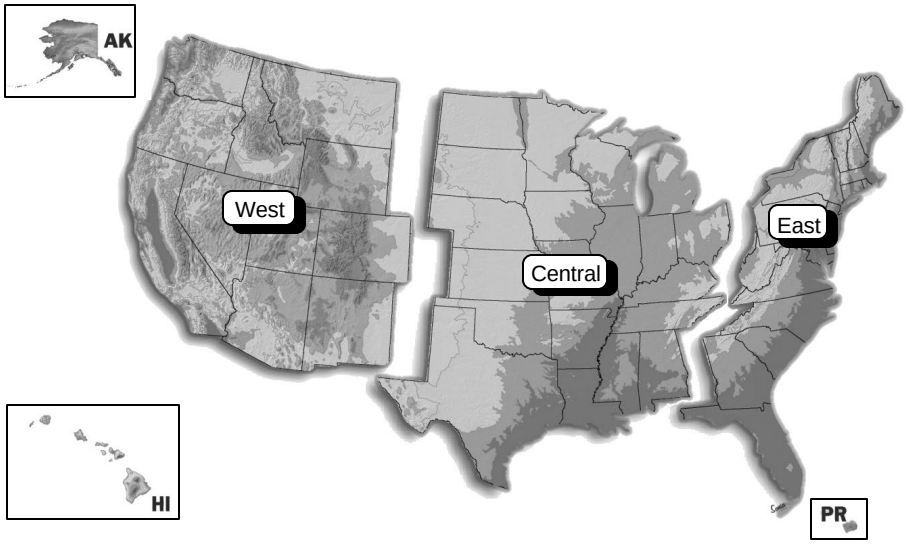
Sales and support team telephone numbers

Sales and support team telephone numbers

Team	Telephone number
Central	800/85-AMX-85 (800/852-6985)
East	800/75-AMX-75 (800/752-6975)
International	+(1) 972-907-6247
Special Projects	800/45-AMX-45 (800/452-6945)
Synergy	800/95-AMX-95 (800/952-6995)
Technical Support	800/93-AMX-93 (800/932-6993)
West	800/55-AMX-55 (800/552-6955)

Figure212

Sales and support team map



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